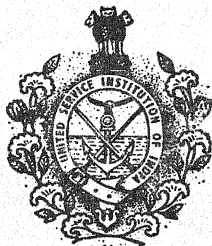


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INDIA'S OLDEST JOURNAL ON DEFENCE AFFAIRS

(Established : 1870)



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BLESSED ARE THE PEACE MAKERS

LT S. V. NILKUND IN

HARDLY a day passes in present times with-out there occurring some incident of morcha, gherao, strike or bundh in one region of our country or the other. More often than not these invariably lead to strife and acts of unbridled violence. The root causes for such occurrences are not merely results of present day upheavals in our society, but are the long term effects of the influence of the chequered history of our nation on our lives.

Rarely has any country been subjected to so many major and repeated onslaughts of foreign influence as has India. All such influences first started as invasions for territorial and material gains, but the invaders finally settled down in the regions they first visited. This was followed by a gradual mingling of the various cultures with the Indian one, which over the centuries got interwoven into very fabric of Indian life till one was not distinguishable from the other. However the differences in the way of life of the various sectors or regions of the country still varied from each other, since the dominating influences in each case were different.

Ironically, it were finally the British, themselves foreigners, who gradually settled down in all these different regions and brought them under their rule. They were also the only foreigners who managed to maintain their separate identity inspite of staying in the country for over two hundred years. When we finally became independent, we had a virtual melting pot of varied cultures, each related to the other in many ways and yet different in many others.

Similarly on the religious front there had been dozens of religions established and accepted over the years. Before their departure, the British had partitioned the country principally on the basis of religion. In spite of this a very significant Muslim minority, forming ten percent of the country's population, stayed on. In order to accommodate this minority and the other smaller ones and to assure them of a fair deal, all religious divisions had to be deemphasised. This was done by adopting a secular attitude backed by supporting policies. Though this helped reduce religious and communal differences, they could not be completely eradicated. Thus these religious differences, which had been kept aside during the independence struggle, now started surfacing from time to time.

*Awarded Gold Medal

To add fuel to the fire, not only India but the entire world was plunged into a period of inflation and recession in the 60's and 70's. With the urgent need to catch up with the first world countries, India had had to rely heavily on borrowed technology and to rapidly build up its industrial base. No country in the throes of such an industrial revolution could stay without disrupting its old mores of living and thinking. The problems of steep economic inequality between the rich and the poor, militant trade unionism and competing political, social and economic ideologies present in the country today are themselves products of this industrial revolution. The economic inequality has risen to the extent that the top ten percent of Indians own more than fifty percent of the total national assets. What is more, this rise is getting steeper in present times. The largescale onslaught of imported technology and our developments in the field of science have changed the values and way of life of our people. It has led to an irresistible movement of individuals and social groups from less to more diverse forms and viewpoints. There are thus thousands of sub-cults milling about, colliding and multiplying and thereby breaking down long established bonds of law, common values and culture. Yet another contributing factor has been our fast growing population. Whatever is produced is thus never enough to reach all pockets and feed all mouths.

The present turbulent socio-economic conditions that exist are thus an amalgamated result of all these factors, which have seen a near total collapse in our public, business and professional morality. All this is manifest in the daily incidents of violence occurring in the country.

Laws are meant to be followed in order to keep a society on its rails and to help in its progress. Violence not only endangers life and property but also hampers and at times retards such progress. To curb and control all such forms of violence and indiscipline is the task of the police force. But by the very nature of our society the police force tend to get regionalised, without our intending it to be so, thereby limiting its effectiveness. Further, the greater the degree and magnitude of violence, the stronger are the measures required to control it. When violence erupts to a level beyond the control of the police, the armed forces are the only other body left which can meet this contingency. It was with this situation in mind that the charter of duties of the armed forces was drawn up to include their having to aid civil power in maintaining law and order whenever required. When this set of duties was originated, the socio-economic conditions then prevalent were for different from those that obtain now. Thus the times when the armed forces would be called upon to play a peace keeping role, were envisaged to be few and far between. What has happened however is that due

to prevailing conditions, large scale acts of violence are occurring much more often than before, and the armed forces are being called in to assist very frequently. The interaction between the armed forces and the civil authorities has therefore gone up. Such repeated interaction not only affects the working and outlook of the armed forces but also that of the civil authorities and the public, in many ways.

The governing of a large democratic country like ours necessitates a vast organisational machine having three main bodies, viz. the governing body (political), the executing body (the bureaucracy) and the judiciary. The armed forces come under the bureaucratic setup, if considered in a broad sense. All bureaucratic setups have three basic characteristics. First, in this system the individual traditionally occupies a sharply defined slot in a division of labour. Second, he fits into a vertical hierarchy which is a chain of command running from the boss down to the lowest individual. Third, his organisational relationship are more or less permanent. The lines between units and their sub-structures are well defined and anchored firmly in place. The individual's obligations to his organisation, his seniors and his juniors remain uncharged over a relatively long span of time and thus a permanent web of relationships is formed. In this particular case under discussion the above applies equally to the individual in the armed forces, the police force and party to the judiciary. When the armed forces are temporarily called in to work along with the police and to a lesser extent the judiciary, this structure is redefined and the roles redistributed, albeit temporarily. Entire organisation lines change and responsibilities shift. These are only the more conspicuous of the visible changes and in actual fact the tremors are felt right up to the lower rungs. The effects of this are felt more in the other concerned set ups than the armed services themselves which are more resilient and disciplined, but there are side effects, however small they be. This creates a whole new climate and a new set of problems. As the nature of their duties require interaction between the police and the judiciary frequently, the armed services tend to become the 'outsiders', people not very familiar with the ropes. In any society or organisation it is human tendency to be wary of an 'outsider', specially if circumstances dictate that he takes over and plays the major role, though it be for a short while. This is a major factor to be borne in mind by the armed forces and they have to be adroit enough to tackle such a situation and settle any misgivings on part of the civil authorities.

A police force that maintains law and order under normal conditions, gets both the backing and appreciation of its role from the majority of the people. Any unlawful incident that occurs under such circumstances becomes that much easier to deal with. However, when a large group of people

are worked up and take to the streets to voice their demands, whatever they be, any small unwelcome incident is likely to cause a flare-up. By the dictates of human nature, any group of people under such conditions tend to lose control of their peaceful nature and give vent to their feelings more by physical action than mental reasoning. At such a stage they become a mob, and a misguided sense of righteousness can cause them to indulge in acts of violence they would otherwise not think of. In such an event, the larger the number of people involved, the larger is the scale of violence likely to be. It is only after such extreme conditions have been reached that the armed forces are called out to restore normalcy in the shortest possible time. Being a force that is primarily geared to physically meet external threats to the country, they also thus happen to be the most cohesive amongst all forces in the country.

Any peace keeping force called upon to curb violence at such a stage has a very conflicting set of tasks to carry out. On the one hand they have to be firm, and to be effective they not only have to brandish their weapons as a psychological threat but also may be compelled to use them. On the other hand they cannot neglect the fact that they are after all dealing with human beings and as such have to be as humane in their approach as possible. Thus they must manage to cater to both these requirements simultaneously.

All major and large scale organisations as also governments employ special 'task forces' to deal with non-routine tasks or to solve specific short term problems. As long as a society is relatively stable and unchanging, the problems the police force faces, tend to be routine and predictable. However when extreme violence or unrest erupts this traditional form of organisation proves inadequate and can no longer cope with the problem. At such a stage a temporary role structure has to be formulated to control this violence.

In this particular case the armed forces are the 'task force'. When called for the job, they realise that the buck stops at their door step and there is no further alternative for the government to fall back upon. In other words, if they fail to achieve the results expected of them it rings the death knell of law and order in the region and this may kindle unrest in the neighbouring regions.

Since, customarily it is the police who deal with the general public in their day to day life they are already accepted as peacekeepers and upholders of the law. This image having settled in the minds of the public since their youngest days, they have mentally come to accept it as a way of life.

But whenever the armed forces appear on the scene, the very nature of the duty they are called upon to play is likely to work against them and alienate them from the public. This situation is further complicated by the fact that, again by the very nature of their duties, the armed forces do not come into contact with any sizeable cross section of the population in their normal work and as such are an unknown entity. The only time they ever make their appearance in public in a big way, is when they are called out at times of extreme tension. Human nature being what it is, this role of theirs as gun-toting disciplinarians is the picture that remains in the minds of most of the people. Thus without our wanting it to be so, a fear of the armed forces is wrongly generated.

Having stepped into the fray, the armed forces have to ensure that their involvement in the peace keeping role is carried out strictly in accordance with the governing regulations. This condition for involvement appears quite obvious at a first glance but is of great significance as it can lead to far reaching adverse consequences.

A line of command and control that finds application in an organisation practically everyday, gets well delineated and all administrative kinks, lacunae and short comings get ironed out over a period of time. Secondly, since these lines of command are exercised frequently the individuals involved are familiar with each other and are also aware of all involved procedure and formalities to be carried out. However explicitly the rules and regulations governing such procedures are codified and a set of fixed principles indicating how to deal with various work problems provided, the nuances and finer points in connection with carrying out these, come only from experience and repeated use of the same. Here again the armed forces are at a disadvantage since they are not involved in this field as often as the police.

They have a further disadvantage in that, whereas the police forces of various states are a some-what regionalised lot and as such are familiar with the language, cultural taboos and social values of the locals. The armed forces are outsiders in all senses of the word. Therefore firmness and discipline become the only key words that help assure their effectiveness.

Another factor they have to cope with is that whereas the police are faced with relatively routine problems, the armed forces get called in at a stage where the degree of violence is far beyond flash point. Thus they need to have a high degree of malleability and mobility in their organisation and should be in a position to monitor and gauge the reactions of the people both as individuals and as a mob, and act accordingly.

Again, their work requirements in the case of a peacekeeping role are entirely different from their normal commitments. Unlike their battle conditions, these situations cannot be simulated to give them practical experience. A newly joined policeman can learn the ropes and settle down to his job as a maker in a matter of months, but not so the serviceman called up to play this role. From the time he is called in, he is aware that the violence and tension is like a ticking time bomb that if not defused promptly, will set off even greater violence and aggravate the situation further. Where the policeman is required to fill a predetermined slot, the serviceman finds he has to move from slot to slot in a complex pattern that is as far beyond his control as it is alien to his way of working.

Though there is no neat definition of any of the situations the serviceman will come across in his peace keeping role, they can be partially defined. Since the boundary line between these situations of violence are not distinct, they have to be defined under certain limiting conditions. The identifiable components in such a case are,—

- the physical setting of neutral or man made objects.
- the location or arena within which the situation occurs.
- the nature, culture, economic conditions, religious and communal feelings of the people involved.
- the location in the organisational network of society.
- a context of available information.

The most important dimension in this context however is the time span over which the situation occurs. Two situations otherwise alike are not the same if one lasts longer than the other, for time then changes the meaning or content of situations. This then becomes the dominating factor that challenges his potential. It strains his innovativeness and adaptability. He finds that he must quickly learn the rules of the game, but the rules keep changing rapidly. Coping with this situation, and that too when emotionally strung up people are involved in large numbers, invariably brings in psychological tensions. The increased rate at which situations change, and this has to happen when people take to violence as a mob, multiply the number of roles he has to play and the number of choices he has to make. To survive this hurricane impact of changing situations, and alien ones at that, he must learn to be adaptive and this places a great burden on him. Human element being involved, his very ideas on religion, community, family and profession are likely to be shaken and altered if the pressures are too high. When this happens more and more often, the results are likely to be deep rooted and profound in their impact.

All the aspects discussed above mainly dealt with the causes necessitating the calling in of the armed forces and their role in completing the task. However by virtue of their short term involvement in this role, they are also affected by the political forces, both overt and covert, operating at that time. Apart from the interaction between the civil authorities, the judiciary and the armed forces (discussed in the preceding paragraphs), one other element that gets inexorably involved in this tangle is the political one.

All political groups and parties whether they be regional, state or national level or even politically linked units like trade unions and nowadays even student party groups, originate only because of the requirement of the general public. Their very existence is justified by the needs of the masses. This is even more so under the present socioeconomic conditions of life in our country. Any strike, morcha or such other disturbance is only an expression of the displeasure of a group of people, large or small, whether they be students, factory workers, government servants or any other body. The cause for this expression of displeasure may either be genuine or some times even instigated by a concerned group of individuals for personal gains.

In either case the political tinge is always present, the degree of involvement being the only variable factor. So it is seen that the political element influences all aspects of life of the masses in one way or the other. The police and the judiciary whose day to day work requires involvement with the public thus invariably have to interact with this political element. At higher levels this involvement becomes more of an influence than an interaction. Whichever the case and whatever the level of involvement, because of repeated association over a sizeable time span, standard behavioral patterns are formed and unwritten rules, powers and influences get established. So the organisational lines get unwittingly modified to cater for these legally unwritten but nevertheless existent political power bases.

However, when the armed forces enter the picture to assist the civil authorities, the resultant reshuffling destabilises the long established lines of control and disorients it. Whichever the situation of violence and whichever the political element involved there always is an opposing political viewpoint. This in each incident of violence, battle lines between conflicting political parties invariably get drawn. This conflict of ideologies may be between two or more regional, state or national level parties or even between a state government and the central government. Whichever the case, the armed forces resultantly find themselves enmeshed in a state of imbalance. Whereas the line of command that directs their entrance into this arena is clear and concise, the field they step into has lines of forces totally unknown to them. They

being a highly disciplined body, go strictly as per the directives, and rightly so. However, this is not normally appreciated by the locally involved parties and the armed forces thus get entangled in a political web not of their own making. More out of political efficacy than rightful intent the opposing elements do their best to prove every action of the armed forces wrong. When there is such large scale mud slinging, a part of it, however fractional does tend to stick on. If much is made of this in the newspapers and other media, it obviously cramps their style. Consequently whenever they are called upon to play a similar role the next time, they have a tendency to tread warily.

Further, over a period of time there is a possibility of the roles of the involved parties getting inter changed because of an altered political climate in the country. This however does not effect the armed services as they go strictly by lines of command and control and not political affiliation. Thus, under similar circumstances they are likely to find that for taking the same action as they did before they are now supported by the party that previously faulted them and vice versa. This is a frustrating predicament to be in.

Again, the politicians role in society is such that he is required to make his views known on a large front of aspects. Thus for every action or inaction of his, he can clarify his viewpoint by an open declaration. This freedom of his is also used freely at times of communal, social or any other form of violence which thus results in the armed forces being a silent spectator to his outbursts if he chooses to blame them. Though the government and most people immediately involved are aware of the facts, the general public may get mislead by such utterances publicised by the media. The only way in which the armed forces can set the picture right is to announce a clarification on the subject after having passed it upwards through the chain of command. This formal procedure gets delayed because of bureau-cratic procedures and by the time it finally reaches the public, the concerned incident is long over and its effect already crystallised. When the armed forces involvement in the peacekeeping role gets repeated frequently, the chances of such incidents taking place are very high.

The overall effects of these factors is that the armed forces unwillingly get involved in political wrangles which hampers their working. If this persists it could cause them to adopt lighter measures than the situation demands, and thus they would lose their effectiveness.

A recent example of the Army being a victim of state politics is the occasion when they were called in by the centre under the Armed Forces Special powers Act to enforce the ban on the MNF. The state Govern-

ment has objected to their involvement stating that the Mizos are a peace loving people. On their part the Army has hardly used any force and have nor indulged in any high handedness. More over their region of control is over a limited sector and they find that whenever they close in on MNF bands, they invariably slip over into neighbouring territories over which the Army has no control. Furthermore, accusation of molestation and sexual harrasment are being made on the Army men. They thus find themselves in a situation where their actions are curbed because of a lack of appreciation of their role in a larger perspective.

In smaller countries such political involvement could have even more far reaching consequences as the armed forces might even decide to take on the mantle of a permanent law maker and peacekeeper. Thankfully, the very size of our country, the discipline ingrained in our armed forces over the centuries right from the time of the British, the maturity of the armed forces personnel, the democratic nature of our form of Government, the fragmented nature and multidirectional tilt of our local parties and their inter-rivalry all help to keep the armed forces on a stable plane and help cushion the otherwise debilitating conditions thrown up by political involvement in their peace keeping role.

In conclusion it can be said that this crisis of character or confusion of values is what we are not able to sort out. We have to keep struggling till our essentially confused mentality is purged of these debilitating influences and we once again reach the levels of morality and fair mindedness that we are wont to talk about nowadays. A secular culture that would provide a constructional outlet has yet to be developed. A synthesis of the path of duty and the pursuit of morality is the need of the day.

DEVELOPMENT AND THE DEVELOPING COUNTRIES

BRIGADIER Y.A. MANDE

INTRODUCTION

IN the present world environment, development and the developing countries has become, rightly, the topic of the day. The developing countries in terms of population outnumber the developed world, are conspicuous because of internal and external conflicts, and noticeable for feverish activity somehow to keep their heads above the water. The problem of development for the developed countries raises a number of issues. What is precisely meant by development? What are the characteristics of developed countries? What can the developing countries do to get out of the bog? And finally, is development the preserve of a few countries and what chances have developing countries for development? In this article, we endeavour to analyse these problems which are commonly faced by the developing world.

MEANING OF DEVELOPMENT

What is development? It would be futile to turn the pages of dictionary to search the meaning of development, nor can any one precisely define development. Development has become public by virtue of certain qualities associated with the developed countries. These are: the developed countries are politically stable, the standard of living is higher, the social policies ensure welfare of the people though the gap may be very wide and national security has been achieved by alliance or otherwise.

But, development is not progress, for progress implies value judgement. How can we call the countries, who have amassed nuclear weapons to destroy the world several times over as progressive? Equally, the competitive policies of the developed countries to capture the market of the Third World, gain a foothold and thereafter pressurise them for their own prosperity and security cannot be called as progressive. Why, even some of the character-traits of the developed societies such as militarism, individualism, contract, competition, overstraining etc., are wanting; they certainly are not conducive for social peace and harmony. Mathew Arnold, reborn today, will still write:

"The world around us neither has love
nor joy nor light nor certitude nor
peace nor help for pain".

To be developed is not the end of development and development as on date is merely a stage in the onward march of civilisation.

HISTORICAL REVIEW AND THE GROWTH OF SCIENCE

In the march of civilisation, the most significant and far reaching event was the fall of Constantinople in the year 1453. The Greek intellectuals who were till then concentrated in Constantinople were dispersed all over Europe carrying with them the rich treasures of Greek arts, sciences and literature. The richness of Greek Drama, Poetry, Sculpture etc is well known but more pertinent is the Greek quest for science. Socrates' search for morality independent of religion is significant. Aristotle himself conducted research on 22 subjects. Aristotle's voluminous findings and Bacon's research with frozen chicken will now appear trivial and and perhaps ludicrous to most of us, but imagine the bravery and plight of the man who tried to dissect a dead body to learn anatomy? And this was done despite the Church-father's and laity who called him the devil. The history of Science is a conquest of reason over emotions and superstitions, emancipation from the domination of Church and spiritualism which has no evidence. Ultimately Science triumphed but not without hurdles and humiliations for which Galileo is commonly quoted. Development as we know today, in the march of civilisation, is due to the achievement in sciences with technology as its by-product.

It is well known that change in one part not only affects that part but the whole. Indeed the growth of science has affected the entire social structure. Before we examine the changes in society as a whole which have taken place in the developed world, we will do well to bear in mind that history is not a smooth transition from one stage to the other. It is criss-crossed with movements which are forward looking and backward looking, and often in conflict with each other. But after the lapse of a period, an era certain common trends emerge which are now visible in the developed countries. We must not forget that development as we see today in the developed countries is the outcome of a historical process over several centuries. Let us analyse the impact of science on other systems.

POLITICAL STABILITY

The developed countries enjoy political stability and have democracy of one form or the other. A man born in the developed countries will take democracy for granted but those in developing countries, still living in political turmoil, must understand what democracy is and how it has come about.

Hobbes, Locke and Rousseau talked about the state of nature—a mere figment of imagination. There has never been a state of nature nor covenant. There could never have been a divine right to rule, nor can the priest class have a certificate of Character signed by God, the Almighty. Aristocracy, unlike pedigreed animals, lacks the facility to reproduce offsprings with more or less similar character traits. Hence, Pareto concludes that history is a graveyard of Aristocracy. To whom should then political power belong?

Democracy is not a gift. It is a consequence of deliberate attempts by intellectuals fired with a scientific spirit for free enquiry into the nature of things and life; nor has democracy been achieved easily. The English model of centuries of friction between the monarchs and the subjects culminating into modern democracy may not be known to many, but the French Revolution is known to every one.

Political power, therefore, must belong to the people. Those seeking power must come in peacefully important, they must go out peacefully. Now all this appears simple except that the developing countries don't have it.

AFFLUENCE

Affluence is a comparative term. The developed countries as a whole have conquered the kind of poverty which is seen in the developing world. On this, no one has doubt, that affluence is a direct result of Science and Technology. But affluence by itself does not mean development. The oil rich countries have wealth but lack all other ingredients of development.

SOCIAL CHANGES

The impact of Science and Technology on society has been tremendous—a subject which is widely studied by students of Sociology. Science and Technology have changed the society as a whole: its institutions, values and attitudes. Let us examine the impact of science and technology on some of the aspects of society.

Religion. Throughout the medieval ages, all over, society was religion governed. God created heavenly bodies, the stars and the earth; the days and nights, seasons, mountains, rivers, oceans etc, are His creations; by His grace all live and dead objects are born; He gives us happiness of offsprings, rich harvest, the pleasures of matrimony and victory in war; His wrath for our bad deeds are manifested in deaths, famines, floods and fires. Verily all that happens in this world is the wish of Almighty and incidentally the melons have stripes because God had designed it as a family meal! Science with humility has questioned the teachings of Church Fathers and has been able to explode the myths one by one. One recalls with interest the arguments of intellectuals in the West from Voltair to Russell. But Science is not anti God nor anti-religion. Religion is a supra-social relationship; the case of a personal God is unassailable. The people in the developed world know that religion has its value but it is not omnipotent nor omniscient. Now, this is something which the developing countries have yet to understand. No text of religion contains chapters on Mathematics, Physics, Biology, Political Science, Economics, Engineering etc. which are vital for life. If prophets had any clue, surely it should have been writ. And if prophets did not get any such revelations, it clearly implies that there are things in life which are of no concern to religion.

Scientific Temper. We live in a world of beliefs and superstitions whose only basis is passing on from generations to generations. Rather unfortunately, some of the beliefs and superstitions have religious backing which makes their removal that much difficult. Scientific temper implies rule of reason, long back, Buddha preached about rationalism. He exhorted people to follow reason and find out the truth by their own experience. But unfortunately his teachings have never been followed. The beliefs and superstitions are hurdles in the path of progress, resisting change. The developed countries because of general education and teaching of sciences have conquered beliefs and superstitions which have no basis. The developing countries should note that developed countries have discarded very many beliefs and superstitions and they don't suffer from the wrath of God. The developed countries have been able to distinguish between the functions of religion, politics, economics, morality and so on.

Emancipation of Women and Poor. Men have always treated women as inferior. And such was also the case in developed countries till the close of the 19th century. The only difference between men and women is muscle power. Women in the developed countries are nearly as free as men and whatever little is left the women's lib is ever active to achieve it. Poverty is a relative term, but the developed countries are genuinely welfare states.

Today, they have enough money to carry a very large percentage of the unemployed. Poverty is a major problem of developing countries. That, the developing countries will take considerable time to eradicate poverty is an issue, which we will examine later.

Confidence and Social Organisations. Science and technology have given confidence to people in the developed countries. All that happens on our blessed earth are not the acts of God. Mankind can conquer cold and heat and the vagaries of nature; we can not only interfere with nature but also restore its balance. This confidence is reflected in social organisations the developed countries have very elaborate and efficient organisations for production, distribution, transportation, communication, health and all that is required for the common good of society.

Industrial Culture. The impact of science and technology on the developed countries has been so great that it has changed the very culture of their society. Human society, during successive ages, has passed from pastoral culture to agricultural culture and from there to the industrial culture. The developing countries are still in the stage of agricultural culture.

NATIONAL SECURITY

National security is a cause of concern for all countries. Political, economic and social development cannot take place unless security is assured. Even the sworn enemies and the contenders of power in Europe have set aside their differences in the interest of security. Unlike shifting loyalties of the Third World, the developed countries have gone in for stable alliances. No wonder, that after the Second World War, no wars have been fought on the soils of the developed countries. National security is a problem which the developing countries have not yet been able to resolve.

To sum up, all these changes have taken place over a period of time in the West and wherever their people went, while the Orient was sleeping. Egypt, Persia, India and China are ancient civilisations. But somehow they ignored the sciences. If, instead of Godmen and Saints, they had produced men of sciences the story would have been different. Not only that they would have themselves benefitted but the overflow benefits would have also reached Africa, Middle East and Southeast Asia — the region which today is known as the developing world. The fact that Latin America despite western civilisation is still lagging behind is a different story.

THE PROBLEMS OF DEVELOPING COUNTRIES

FORM OF GOVERNMENT

The developing countries have various forms of Government; there are Monarchies, Chiefdoms, Dictatorships, Military Regimes, Religious Heads holding the reigns of the countries and democracies which, of course, are rare. They suffer from a power vacuum after liberation and lack of conventions for the effective functioning of democracies, and hence political instability.

Evidently, no one denies democracy and a common argument proffered is that until such time that people are educated and become responsible, a country must be ruled by the competent — be it monarch, one party rule, dictatorship or military regime. After all the National Interest is foremost. There is some truth in this argument, but, let me quote a debate which took place many centuries back.

Plato was of the view that the States must be ruled by the competent and the trained. Guardians is the word he used. Plato argued about the importance of sound management of the State for the benefit of citizens and went into details of selection and training. He laid down a rigorous training period of 30 years for the Guardians before they could be given any public assignment. He also went to the extent of advocating communism of the Guardians. Now, the arguments of Plato are convincing and he has his admirers to this day. However, there was a dissension and Aristotle summed up his arguments in one sentence — "But Master, people will know what is good for them". And Why?

The intellectuals like to lead a comfortable life in their flats, speak to limited audience, publish their learned and highly specialised views in books, papers and periodicals. They just don't go to the people and at times treat the common man with apathy even disdain, using terms such as ruffians, rustics, villagers and un-illuminated. The intellectuals and elite have all the vices of human nature of greed, power, lust, jealousy, envy and the feeling of insecurity. The strong point of the elite, according to Pareto, is that they have a higher score index in their branch of activity. It would be more appropriate for the intellectuals and the elite to go to the people and enlighten them rather than demand power. It is alleged that people listen only to what they comprehend or fear, and hence the appeal of religious men and the "Dadas". But surely this cannot be true; after all we have the examples of Buddha, Gandhi, Nehru and others. The intellectuals and the elite enjoy the facility of criticising great men without possessing their virtues.

Public faith has to be earned. With the growing awareness, the people have lost faith in the intellectuals and the elite. People obey them, fear them and the majority makes use of them because of their influence and position of authority. The intellectuals and the elite have all the qualifications but lack certain simple qualities which even the priest class has — of simplicity, sympathy and intimate relationship with the people.

This is not to say that intellectuals and the elite are meaningless or enemies of society. On the other hand, they play a very important role. We merely want to emphasise the strength of Aristotle's argument that people will know what is good for them, and the democratic principle that political power needs no qualification or specialisation. Now democracy is an open game and some intellectuals are bound to enter politics. The political parties, unlike all organisations, have a very large base and very few leaders at the top. It is not necessary at all that all intellectuals join politics.

Aristotle has been accepted by the developed countries while Plato continues to exercise influence on the developing world.

ECONOMIC PROBLEM

The developing countries want to make economic strides, a kind of great leap. People are fooled by slogans such as elimination of poverty in 5 years, 9 years and so on. What obviously is not understood by the people is that it is easier to get independence but elimination of poverty is an extremely difficult task; above all it must take time. The author was witness to frenzied slogans of Sonar Bangla and Great Expectations during the 1971 operations. Little did they realise that liberation is only a condition; elimination of poverty needs hard work and patience.

Prior to liberation, most of the developing countries were exporters of raw materials and importers of finished products. They now want to industrialise rapidly and become self sufficient, but how is this to be achieved? The developing societies are new to money economy; they lack technical manpower and knowhow, capital for investment and have not as yet developed socio-philosophy which is conducive for industrial development. Some of the countries are lucky to have strategic raw materials, but they do not know how to exploit them. In their case, production and marketing is being done by others which makes them worse as they get involved in super power politics. Unearned wealth is as bad as poverty. Ultimately the economic asset of a country are its people and Japan is the living example.

PITTIABLE SOCIETY

The society of developing countries is illiterate, custom-bound, full of superstitions and false beliefs, tied down to dogma and producing children which neither benefit God nor people. There is no such thing as developing countries, there are only undeveloped societies left behind in the march of civilisation. The problem of developing countries is the development of the people who would accept and insist on a sound political system, economic and social policies.

One would not be wrong to say that the developing countries have to blame themselves for their state. This argument is well understood by developing countries themselves and the awareness exists. However, one must show sympathy and understanding keeping in mind their condition at the time of liberation. Incidentally, what are others doing? Unfortunately, the relations between the countries are not governed by human interest but national interest.

EXTERNAL INFLUENCE

The bulk of the developing countries profess non alignment but in the present world-environment, absolute non-alignment is not possible. The developing countries lean one way or the other and there is nothing wrong with it; after the developed countries are openly aligned. There is nothing wrong with the aspirations of developing countries in trying to maintain their national identity and dignity, and remain detached from super power politics. How far is this possible?

The super power rivalry is something terrible. Not only do they want to amass weapons of destruction, but they also need allies and spheres of influence. The third world is their easy target and destabilisation is a very low cost game. The functioning of neo-colonialism is well known; the colonies can get independence but not economic freedom — after all the colonies were made for the benefit of mother countries! !

But the super power rivalry is not entirely harmful for the developing countries. If there is only one world power, the third world would remain as slaves. Here the arguments of Bertrand Russell on one world Government are not acceptable to a pragmatist. Bertrand Russell felt that there should be only one world government; it is immaterial whether it is Soviet or American, after all no Government can neglect the welfare of its own people.

CHANCES OF DEVELOPMENT BY THE THIRD WORLD

In the concluding part, we examine the chances of the third world to develop. In the historical review, we have already examined how science and technology have helped in the development of human societies. Some of the developing countries, during the medieval period, were well ahead of the West and even the Americas had a civilisation far advanced than the intruders. If the West has developed fast, it is because of a chance event ie the fall of the Constantinople and the Church-frustrated intelligentsia.

The third world will develop but they must remember the following:—

- (a) Development is a historical process in the march of civilisation. No one can withhold societal trends. Movement in the reverse direction is not possible.
- (b) It takes time for development. The form of government or the means employed do not make any material difference. China and India, starting from the same period, have used different strategies but neither can claim to be more developed than the other.
- (c) Developing countries must remember that it is science and technology which is responsible for development. The human aspiration for free inquiry and rationalism will ultimately triumph. Those who sponsor dogma and religion for their own short time benefits are bound to fail.
- (d) Frictions, rivalry and wars have never done any good to society. Civilisation has adequately advanced to ensure that there can be no gains by conquest.
- (e) Co-operation is the greatest virtue of our times. The city states, ideal as they may appear, lost their significance even in the Greek period. Today, even nationalism is not good enough. The requirement is for regionalism.
- (f) The developed countries have taken centuries for development and social adjustment. But there is a thing called dilation of time and, therefore, the developing countries will not take that long. What has previously taken centuries will now take decades, but to expect development overnight is absurd.

And finally, the developing countries will do well to note that the late starters have some advantage. Earlier we had noted that development is not progress. The glamorous West with all its pomp and show lacks certain basic under — standing, such as:—

- (a) "Freedom exists only in bondage" — Tagore.
- (b) "If only people can live happily in their families, no other code of morality is needed." — Confucius.
- (c) "Swadharma" — Krishna.

Development is a legitimate human aspiration. It's doors are open. There are no convincing theories on rise and fall of nations, nor should developing countries delight in Spengler's "The Decline of the West". Development needs wisdom, patience and hard work.

CONCLUSION

Development is a result of historical process in the march of civilisation. Its attributes are political stability, higher standard of living, sound social policies and national security. The West has developed after centuries of struggle. However, development is not progress.

The developing countries want to emulate the West. One day, the developing countries will succeed but there lies years of hard work ahead. They must learn to skip over their petty differences, jealousies and enmity. The road to development lies along science and technology. Developing countries need not feel frustrated; what earlier took centuries will only take decades provided the policies are sound.

How does India figure in her attempts towards development? We will take up this question in the next article.

THE IMPLICATION OF US ARMS FOR PAKISTAN

Indira Awasty

Newspapers reports blare out about the supply of Harpoon missiles, C 3 networks, F 16s AWAC type Hawkeye surveillance aircraft, M 60 Tanks, Tow missiles and the like by the US to Pakistan. A trickle of information of one item at a time from the rumour stage to the delivery stage passes through the Indian press. But neither the total of all the equipment received and demanded in the future by Pakistan from the US has been compiled, nor the implications of the Pakistan's enhanced military capabilities have been impacted on public consciousness. It is important to comprehend the reasons behind the quality and quantum of American arms being pumped into Pakistan, a part of its strategic consensus, a frontline State and integral to the US Central Command; the value of US Arms to Pakistan; and to understand, even broadly, what the new weapons system imported from Pakistan are all about.

Pakistan meets the requirements of US strategic interests in the Persian Gulf area. Hence Pak troops are being equipped and trained to support and perhaps spearhead the operations of the Rapid Deployment Force, and, Pakistan is being built up as a communication and intelligence gathering centre for the US Central Command. The US is supplying to Pakistan all the sophisticated arms and equipment that it has supplies to the other front-line States like Israel, Saudi Arabia, Egypt and Turkey. This has been done for the sake of uniformity and efficiency in standardizing arms and training throughout the Centcom "National" Forces. Therefore Indian objections regarding the heightened lethality of military supplies to Pakistan fall on deaf American ears. However, the quantum of dumping in individual countries is enough for training and a little more for use by interchangeable Forces in emergencies.

Of the US \$ 3.2 billion sanctioned in 1981 by the US Senate, US \$ 1.7 billion worth of credit was earmarked for arms sales. It is my contention that over US \$ 2 billion worth of arms have been and will have been supplied to Pakistan by 1985. And a further US \$ 2 billion worth of arms will be supplied to Pakistan by 1990. Besides the 1981 US \$ 1.7 billion sanctioned within the military and economic package of \$ 3.2 billion, the

Senate makes yearly sanctions to Pakistan under its foreign military sales program. For instance in Oct 83, US \$ 300 military were given for the year 1983-84. Now it is proposed to sanction US \$ 630 million for the fiscal year 1984-85. On top of which the US President can use his own prerogative to sanction arms sales under \$ 200 million every year. US arms are quite expensive because they are manufactured by private companies. Only the price of used Government equipment can be marked down like the M 48 A 5 tanks. While the US gives outright grants of arms to Israel and Egypt, so far, the Americans have announced only soft loans for arms purchases by Pakistan. However, everyone knows that Pakistan will not be able to repay these loans and the Americans are probably resigned to the idea of the amounts being written off after a period of time. Or payment for arms may be offset against the use of Pak bases and facilities. Pakistan makes some commercial purchases too from remittances received from expatriate workers in the Middle East. The Saudis bank roll some Pak arms purchases, more in the nature of payment for two divisions worth of Pak troops engaged in security duties in Saudi Arabia.

There is another category of military equipment and facilities being built up in Pakistan on a priority basis, which cannot be fitted into any US fiscal allocations for Pakistan. These are 20 forward airfields being constructed, strategic roads being made in Baluchistan, three ports of Gwadar, Jiwani and Pasni being constructed in Baluchistan (out of the range of the I.A.F.), and the development of the Baluchi island of ORMARA into a big radar Communication centre for the Centcom. The US has given Pakistan aerial warning system—MPDR 45, MPDR 60 and MPDR 90. Pakistan is setting up an integrated Command, Control and Communication network (C3) which is a multidollar project begun in 1980 by the Hughes Aircraft Corporation. "Intelligence" will also be added (C31) and the network will be hooked on to Pentagon circuits for intelligence sharing and close-co-ordination between the US and Pakistan for future military operations in the Centcom area of responsibility. Incidentally the State of Jammu and Kashmir forms an "area of interest" for the Centcom. Airfields, roads, ports, aerial warning systems, communication islands and C31 facilities must form part of Centcom's ORBAT and be paid for through Centcom's logistics budget.

Pakistan has commercial armament dealings in tanks, missiles, naval boats, lasers, night vision devices, respirators and masks for protection against nuclear and chemical warfare, goggles and gloves, 5 ton trucks and the like with China, France, Sweden and Japan. These purchases may be funded from foreign exchange repatriated by Pak immigrant workers

in the gulf countries. There are reports that Western Europe may consider offering Pakistan a "defence package" etc. However, these sales and procurements only complement the strike and offensive military capabilities of Pakistan. The preponderance of arms and equipment come from the USA.

The following weapons were contracted for delivery between 1983 and 1986. In fact the bulk of the shopping list ought to have been delivered in 1983 and 84, barring the F-16 aircraft whose delivery will be staggered till late 1985.

1. 40 F-16 aircraft worth \$ 1.1 billion. 12 of these have already been delivered. Each aircraft would cost US \$ 27 million with spares, advanced avionics, training, freight etc. But the bill on the first six must have included an advance payment to the manufacturing company for the rest of the 34 aircraft on order. F-16—Much has already been written about the capabilities of the updated version of the F-16 fighter aircraft. It has been fitted with the ALR 69 radar locating system. This system locates hostile radars, jams their frequencies and fires flares as decoys and as a deflection process. The F-16 flies at 2240 km. an hour, has speed brakes to decelerate quickly and to manoeuvre at low altitudes.
2. 100 sets of airborne and ground communicators costing about \$ 3 million; a few infrared scanners and a score of TOW ground launchers worth US \$ 6 million.
3. 100 M 48 A5 tanks costing \$ 70 million have been delivered. 300 more have been sanctioned. The delivery schedule of which is not exactly known but it is presumably between 1985 and 1988 (80 T59 tanks from China have been delivered recently, it is learnt).

M 48 A5 tanks—These are later versions of the Patton series. Each tank has a 105 mm gun, a laser range finder, one machine gun for ack purposes and one for ground role; it has a 800 horse power engine; it is dieselised and can run 500 kms without refuelling, and it has night driving and night firing capabilities. It is "NBC" (nuclear, biological, chemical) warfare protected. The M 60 will be yet another version of the ongoing Patton series, with slight improvements. India's T 72 tanks compare with the M 48 A5 series.

4. 300 M 113 Armoured Personnel Carriers, worth \$ 300 million, have been delivered. 200 more will come later in 1985 may be.
5. 35 M 88 AI Recovery vehicles costing \$ 35 million.
6. 40 M 110 A2 8 inch (self propelled) Howitzers, costing about \$ 1 million a piece.
7. 24M 901 Infantry Tow Vehicles (ITV) costing US \$ 12 million (needed to mount Tow missiles on).
8. 130 M 198 Towed & 109 self-propelled A2 155 mm Howitzers, about \$ 90 million.

HOWITZERS & GUNS—The difference between a gun and a howitzer is that the later has a shorter barrel, a high angle of fire, low muzzle velocity. A gun has a longer barrel, flat trajectory, a higher muzzle velocity and more range. Hows are needed for mountain warfare because of their crest clearing facility. Hows have less wear and tear on the barrel and less ricochet and deflection in the landing of the round. The version that the Pakistanis are getting are a combination of a howitzer and a gun. The 8 inch howitzer that Pakistan has acquired is deadly and is not matched by any Indian weapon.

155 mm gun—While not the very latest in gunnery in the world, is being avidly sought by Pakistan (who have got it from the US) (No 8) and India, who are still hunting. This has a heavier shell with more range. The USA, Sweden, France, Austria, UK, Italy and Canada make this gun. The Soviets and their allies make a 152 mm gun but not a 155 mm gun.

9. 1005 Tow missiles costing \$ 9 million.

Missiles—are projectiles or shots. Much is already known about the French Crotale and the Swedish RBS 70 in Pakistan's inventory. Missiles are used by the Navy, Air Force and Army. Most missiles have all three versions. Tow missiles are tube launched, optically tracked, wire guided surface to surface missiles. This is the second generation of the COBRA or SS 11 missiles that India has. Tow missiles can be mounted on tanks and vehicles in ground configurations or be mounted on helicopters too. The kill probability is higher and no manual guidance by joystick

manipulation is required in the Tow. India's equivalent will be the MILAN when we manufacture it. HARPOON missiles are sea missiles which can be fired from submarines (AGOSTAs), from the air (SEA KINGS) and from board a ship (GEARING CLASS DESTROYERS).

10. 20 AH-IS Attack helicopters costing about \$ 150 million.

AH-IS Attack Helicopter (Cobra)—The Americans have four series of helicopters. AH are the attack helicopters; US are the utility or troops carrying helicopters; CH are the cargo carries, and "S" are light scouting choppers. The version that Pakistan has got are a combination of the attack and scouting varieties, which mount Tow missiles.

11. Ammunition for 155 mm howitzers and cartridges for 105 mm guns of the high explosive kind. These must cost about US \$ 25 million for about 30,000 rounds.
12. PVS-5, PVS-4, TVS-5, TAS-4, TAS-6 night sights have been ordered and some received. Costing could not be discovered. *Night Sights*—Pakistan has acquired various versions of night sights to be fitted onto tanks and guns. They capture the latent moonlight to give telescopic effect.
13. 10 sets of AN/TPQ-36 "Redye" mortar locating radar have been delivered. 10 are still pending delivery. The exact value could not be ascertained but one could hazard a guess at \$ 10 million a piece.

AN/TPQ-36—is an interesting ground surveillance radar system for locating enemy artillery. The system is mounted on a 1½ ton truck with a trailer for the generator. The radar locates enemy rockets, mortars, missiles etc. and then directs and commands own fire automatically. It also performs general battle field surveillance. India has no matching system, yet.

14. 4 AWAC type Hawkeye surveillance planes were cleared for Pakistan in October 1983. The cost could be about US \$ 200 million.

The E2C, "Hawkeye"—is a smaller version of the AWAC already given to Saudi Arabia. After initial hesitation, the US have cleared the sale of 4 of these surveillance planes to Pakistan.

From the American point of view these are necessary adjuncts to the 40 F-16s to be provided to Pakistan and are necessary for effective surveillance of the Afghan border. The "Hawkeye" performs early warning, command and control functions and is all weather airborne. It coordinates surface surveillance, helps in communication relays and in search & rescue naval operations. It has three primary sensors—for direct radar purposes, identification of hostile objects and passive detection in which it identifies radar operations of other planes. The speed of the Hawkeye is 270 knots per hour and it can be used to direct own planes to the target. India is looking for an airborne warning system. It is not definitely known whether the Americans would give the Pakistanis aerial refuelling planes.

15. In August 83, the US announced that it would sell 40 and may be many more) Harpoon anti ship missiles and the Vulcan Phalanx air defence system to Pakistan. A Gearing Class destroyer "Shahjahan" is already under order.

Vulcan Phalanx Air Defence System—has a ground and sea version. This has 4 components—scanning, beams on and catches a hostile missile being fired at it (like the Exocet), alerts own weapons and automatically fires own weapons when the intruding missile is within range. It is in effect an anti-missile system.

The armaments mentioned from 1-15 do not meet Pakistan's total defence needs. Pakistan would require another 500 M 60 tanks, 100 F 16 fighter planes, some transport planes, dozens of attack and utility helicopters, missiles of all descriptions, 300 more APCs, 400 more guns, ammunition and spares. The US will find some method of releasing these items also, after 1987.

According to knowledgeable circles, the characteristics of the third weapons modernisation cycle in South Asia are—sophisticated supersonic aircraft with greater emphasis on avionics and full use of the potentialities of airborne warning and control systems, real-time information processing and surveillance. Remotely piloted vehicles will come into play. The full impact of electronics and micro processing will be felt. In the field of armaments, there are rapid strides in missile technology and anti-tank, ship to ship, skimming and surface to air missiles. Cluster bombs are in fashion.

Pakistan's *raison d'être* for joining the strategic consensus might have been to Indian equipment of Soviet origin and India's indigenous arms manufacture. Pakistan exports military troops, training teams and military

advisors to 22 countries, to earn foreign exchange, to equip Pak divisions with modern arms, to train their manpower in handling sophisticated weapons and equipment and to give an opportunity to Pak officers and troops to earn handsome salaries. The Pakistanis will go along to great lengths with the Americans in order to obtain highly sophisticated military hardware. The Pakistanis and the Americans depart on the subject that whereas Pakistan views India, first, last and always as its only enemy and everything that Pakistan has will always be pitted against India, the US are developing the frontline Pakistan for American global strategy. However, the Americans have had to pander to Pakistan's ravings about the Indian bogey. The second miscalculation that the Americans may have made is whether the Pakistanis can in fact be used like fire fighters or surrogates in the Middle East a la Cuban fashion. The only situation in which one can visualise Pak troops fighting in defence of American interests is in the role of guarding oil installations against indirect Soviet/hostile air attacks. But one doubts very strongly whether Pak troops will fight anywhere else. Pakistanis have too much pride to be cannon fodder for the Americans.

An analysis of the quality impact of the importation of these latest systems by Pakistan may be felt by India's defence machine. In the Army, there is parity in manpower between Pakistan and India, given India's 3 front compulsions. However, the Pakistanis are raising 6 and more divisions. The Pakistanis feel that they are short of 16 Armed Regiments, of which the immediate acquisition of 100 M 48 A5 tanks have equipped two and the Chinese M 59s have done for another 2 Regiments. While India's T 72 tanks and T 55 tanks can be matching, but the Vijayanta as our main battle tank reduces the tilt of India's numerical superiority. India again has the greater quantum of guns. But Pakistan has the heavier 155 mm guns and the 8 inch howitzers. Though the weight may slow down the rate of fire. However, Pakistan has wisely chosen to concentrate on "target acquisition" techniques with electronics systems to pin point targets and direct own fire. Indians depend more on observation. Hence the speed and accuracy of Pak retaliation may be better.

Missiles are probably used by both countries only at tactical levels to give cover to static installations. These are used against aerial attacks on vulnerable points or vulnerable areas. The Tow and MILAN will be in the anti tank role. Neither country uses missiles as strategic or medium or intermediate range offensive weapons. The AD cover of both countries is poor.

On the naval front, India has the stronger Navy. The main defect of the Pak Navy being the absence of a strike element lacking an aircraft

carrier. This can offset by the F-16s. The vulnerability of Karachi as the only and reachable port of Pakistan is being offset by the American development of three safe ports, out of IAF reach, in Baluchistan.

In the air, India hopes that a configuration of Mirage 2000s, with the Jaguars and MiG 23s, will meet Pakistan's F-16s which are the best fighter planes in the world today. F-16s make Pakistani air striking power superior to India's and our industrial, military and nuclear establishments more than extremely vulnerable. We have no adequate air defence system or early warning system to counter the penetration of and to limit damage infliction by the F-16s. The Pak possession of AWACs, C 31, MPDR aerial warning systems have the consequence of making Pak air and ground surveillance miles superior and they can jam all India radar and even missile frequencies and their target acquisition will be more accurate. While Pak airspace will be difficult to penetrate undetected, Pakistani planes can enter Indian airspace any time and anywhere.

These are the edges which the new arms imported by Pakistan give them. But this is not the total picture of Indian versus Pakistani armed might. The fact is that while Pakistan serves the purposes of the US. and their interests coincide, even though due to varying perceptions, Pakistan will be freely armed with almost the latest in weapons by the USA. And India will have to somehow keep up and in fact be ahead in the Arms Race in South Asia, as we have been doing so far. However, Pakistani and American interests need not coincide in perpetuity, nor can Indo-American indifference be frozen for all ages to come. On the face of this sum, what are India's weapons options, either by way of foreign acquisition of weapons systems or indigenous production of selected items, of nuclear weapons? And which ones?

THE INDIAN NAVY—A VICTIM OF HISTORY AND LEGEND

ABHIJIT BHATTACHARYYA

If an objective analysis of the significance of the sea and naval forces in Indian strategy must begin in the light of her internal politics, political thought and foreign policy, it must start with an undeniable and indisputable confession that hitherto it has always been land-based. History, geography and the perceptions and analysis of contemporary threats and independent India's wars with her neighbours in the last thirty seven years, all would ring in chorus to laud this confession. It is true that Indians, of late, have started admitting the importance of a navy and the maritime strategy, but the basic thinking, concepts and threat perceptions are still land-oriented. The main stress appears to be on general and conventional land-warfare, beginning with surprise thrust on selected convenient and tactical points (in retaliation or in anticipation of some pre-emptive enemy action) with the combined and coordinated infantry, armour and artillery fire and supporting role of the Air Force for both reconnaissance, interdiction, ground attack, anti-tank strikes and bombing of the enemy logistics and supply line. On the defensive side, the country's air defence regiment and batteries go into action against the intruding flying machines and their missiles and the warning system of radars try to guide the home air force. The Navy is a minor wing of the Armed Forces which is called upon occasionally to perform some supporting roles. No wonder! Are not the high seas far away from the seat of power? If the Indian Navy is to play an important role in the overall Indian defence policy and strategy and gain an adequate share of resources, its protagonists and philosophers must convince the political leadership that the Navy is capable of a role so unique and important that it cannot be matched by either the Army or the Air Force and that therefore it must occupy the pride of place in the central aims of strategic planning.

The prime importance of the Army in the history of Indian defence thinking is founded on the geography, history and, indeed, the legends of India since time immemorial. It is an inherited legacy which needs little proof.

The legend of the Mahābhārata is the history of land warfare which was fought on the plains of the Gangā-Yamunā Doāb of north India. All the important kings and their kingdoms were land based and away from the sea. The exception was the Yadu dynasty, to which Lord Krishna belonged. Its territories spread to the sea-shore and its capital Dwārakā was washed away by the waves of the mighty Arabian Sea.

The legend of the Ramayana also is conspicuous by the total absence of sea-warfare and maritime activity. Though the central stage of the Rāmāyana is the riverine plains of the Saraju, Gangā, Ghagra, Gandak and the Kosi of north India, and the adventures of Lord Rāma took place in the jungles of East, Central and South India, the subsequent campaign and conquest of Lankā does not show any naval confrontation between the two belligerents. Surprisingly it was an Army's conquest of an island and there was no naval landing, manoeuvre and bombardment even with elementary missiles. In fact, it was an extraordinary feat on the part of the Army engineers (who also the help of the civilians like the symbolic squirrel) to have constructed a bridge on the sea which enabled the invading army to cross over and enter the arena of the headquarter of the enemy armed forces. Interestingly, the entire construction operation of the corps of engineers of Lord Rāma's Army was a smooth affair, and at no point of time did the Lankā armed forces put a brake on the pace of this activity. There was no reconnaissance or air attack (despite the fact that Lankā must have the nucleus of an Air Force as is evident from Rāvana's "Pushpak" flight from Dandakaranya to Lanka after Sita's abduction), no naval bombardment and no army assault. Lankā security forces appear to have been suffering from a false sense of complacency and smug self satisfaction and underestimated the threat which was being posed by a penniless "beggar" Prince who had been wandering through the jungles for years. Evidently, Lord Rāma, in the eyes of Rāvana, could not have had mustered enough force and courage to over power and conquer the might and prosperity of Lankā. Rāvana paid very dearly for having underrated the strength potential of his enemy.

Rāmāyana, however, contains ideas of aerial activities for reconnaissance, maintenance of essential supplies and carrying war to the enemy's camp. Hanumān was the one man (animal?) pilot-cum-flying machine of Rāma who played the role of modern Multi-Role Combat as well as Deep Penetration Strike Aircraft. He functioned as a reconnaissance machine for locating the "Ashok Vana", where Sita was kept in solitary confinement. He behaved like a mighty cargo cum transport flier when he carried the 'Gandhamadan' mountain. He played the role of a low level fighter ground

attack cum bomber when Lanka was set on fire by his burning tail. His manoeuvres also showed that he did not need a runway to take off and land, which in turn proves that he was as good as a vertical/short take off and landing flying machine—a worthy predecessor of modern Sea-Harrier. In short, the devastating conflagration showed the supreme importance of air fire power. But sad to say, the navy had no role at all to play in the whole of Rāmāyana.

HISTORY

Legends apart, the history of India too followed the land approach. In fact whosoever has been the ruler and whatever might have been the age, time, place and the extent of territory, the survival, expansion and control of the relatively bigger and stronger Indian monarchs have always depended entirely on the strength and loyalty of their armies. There was no Navy and the maritime trade had always been negligible compared to the land-based commerce and the domestic barter economy. As the land mass with its dense population, variety of resources and sprawling agricultural products increased, the empires and principalities of India became largely self-supporting, with little need of maritime trade. Mauryas and Sungas, Guptas and Pratihāras, Pālas and the Stavahanas,—none could be considered to have had a powerful navy. All were basically following continental strategy. The exception, to some extent, was the rule of the Cholas, Chālukyas, Pallavas and the Marāthās. But the extent of their domain and the short span of their reign could not alter the basic ideology and philosophy of the vast Indian subcontinent for whom the maritime strategy appears to have been a luxury and, therefore, an anathema.

The existence of this traditional and historical non-naval philosophy continued in the medieval period of the Indian History too. The Sultans of Delhi Sultanate, the Khaljis, Tughluqs, Lodis and the Mughals, all depended on their Army's ability to conquer and control resentful subject people. The pro-army policy became all the more so due to the frequent invasions from and through the North-West Frontier of the Indian continent. In fact, there was a possibility—which tended to become a reality—of new frontiers coming into being at short intervals, which in turn made India contiguous to strong rivals in Central Asia, and thus called for the permanent deployment of a massive land based force.

The unique characteristic of the history of India, in a way, is that despite being encircled by ocean on three sides, she has remained and behaved primarily like a landlocked country. India had the ocean, but

seldom did she use it. She had thriving ports like, Bharukachha or Barygaza (modern day Broach), Tamralipti (modern day Tamluk) Tondamandalam, Korkai, Kānchi and Nāgapattinam. But their prosperity, and utility had been remarkably short-lived. It was thus inevitable that the history and geography made the internal stability and external security of India primarily dependent on the Army, with the Navy relegated to ancillary or no role at all.

So long as the overseas threat came from across the land frontier, one could appreciate and understand the importance given to the Army. But in the process, the greatest casualty of the Indian history became the Navy, maritime trade and the coastal defence of a huge sub-continent. The advent of the European sea-farers, trading companies and subsequently their navies brought the worst out of the Indian monarchs. Their land forces were rendered utterly helpless and at times useless in front of the trained British and French navies and the Portuguese pirates. Modern history of India became the stage of and for the activities of European navies and their gradual setting up of factories and bases at Surat, Broach, Goa, Daman, Diu, Cochín, Bombay, Madras, Nagapattinam and Calcutta. The entire coastline of India was studded and dotted with the maritime bases of the nimble and fleet footed mercantile marine and navy personnel of the West. The oriental army could not sail their boats properly and the consequence was the shortlived and brief resistance to the inevitable victory of the *West*.

REALITY:

This is the history which has been inherited by the modern Indian Navy. The verdict is clear. But will anyone learn a lesson? India, apart from having a vast coastline, also does have several islands, which are part and parcel of her body and mind. And geographically, some of them are dangerously more contiguous to foreign countries than to their motherland's body.

We all know that a powerful foreign navy had been mobilised during the Indo-Pak War of 1971. What if the Marines of that foreign Navy had landed at Andaman or Nicobar Island? Would or could the Indian Armed Forces stop it from happening? Or can such an eventuality be prevented from happening in future? Is the Indian Navy capable enough to face a naval war on two (three?) fronts? Will the Indian Navy be able to make successful amphibious landings and thereafter expel the aggressor from its islands—a type of feat which has been achieved by the Royal Navy, Air

Force and Army in tandem during the Falkland War of 1982? The policy makers and strategy chalkers of the Defence of India must take the cue and learn the lessons of history to start with, which alone is likely to enlighten and show the path for the future. After all, the future defence of any country is bound to be a logical and synthetic result and outcome of the past whose constant interaction with the present will bear fruit. What shall we have?—A fruitful or fruitless defence for tomorrow? Tomorrow is another day for the country, its navy and maritime activity in which we may have to face a different sea. History may or may not repeat itself, but certainly an Indian would hate to see the maritime policy and its history of India being repeated.

HELI-FIGHTER: THE EMERGING WEAPONS SYSTEM FOR CLOSE AIR SUPPORT

AIR COMMODORE—JASJIT SINGH AVSM, VrC., VM

A GREAT deal of controversy stemming from diverse misconceptions surround the employment of helicopters on modern battlefields: and the introduction of the armed helicopter has only led to an intensification of these misconceptions and controversies. Air warfare has a very short history as compared to conflict on land and sea: and during this short period it has, time and again, proved to be the dominant factor in modern wars. It is therefore, almost inevitable though unjustifiable, that a great deal of misunderstanding characterises airpower, especially amongst those who are not active professional practitioners of it. Nowhere is the misunderstanding greater than in the area of offensive air support of ground forces: with these misconceptions now focussing on armed helicopters. Objective assessments have been adversely affected, on one side, by the legacies of the Vietnam war with its lessons learnt and mis-learnt, and, on the other, the effects of transplanting the Central European strategic environment into conflict situations the world over. There is, thus, a need to examine the role and scope of employment of armed helicopters on the modern battle-field.

Close Air Support

It would, perhaps, be useful to first arrive at a degree of commonality in the understanding and interpretation of two important terms: close air support, and aircraft. Close air support (CAS) may be defined as air action against hostile targets which "requires detailed integration of each air mission with the fire and movement of those forces". Close air support in modern wars would require:

- an increasing proportion of combat support missions, especially related to target development, target designation, and control of air strikes;
- effective and responsive airspace management in the tactical area in a communication-jamming environment;

- adequate weight of attack to ensure effectiveness: this being intrinsically higher in battles of movement and manoeuvre.

The need to re-examine the term 'aircraft' is not born out of levity: but from the essential importance to place the helicopter in its correct perspective. An aircraft, in the best of dictionaries is defined as a flying machine: in aviation community it is accepted as 'heavier-than-air flying machine' to distinguish it from airships and lighter-than-air vehicles. The armed helicopter, on the other hand, has been variously described as a "gun-ship", a "flying tank", a "ground independent, wheeless, all-weather gun/missile system", a "battle-cruiser," and now, even as a "Main battle air vehicle"—the MNAV, something akin to the MBT (Main Battle Tank). All such terminologies tend to imply that the armed helicopter is a surface vehicle with some sort of capability to enable it to fly and execute weapon-delivery. The truth however is, that a *helicopter is an aircraft*: and there should be no misconceptions about this essential fact. The difference between fixed-wing and rotary-wing aircraft is only in the mode of lift generation. Modern technology is opening up new horizons in aerodynamics; and helicopters in fact, are expected to move onto composite aircraft, like the JVK *tilt-rotor* being developed in USA; a turbo-prop aircraft, which functions both as rotor-craft as well as a fixed-wing aircraft, and will be able to fly at twice the speed of present day helicopters.

Once the helicopter is seen in its proper perspective as an aircraft, realistic doctrines and organisations for its employment can be evolved. Essentially, therefore, as another element of airpower, the doctrines and organisation for the employment of the helicopter must flow from the principles and precepts for the employment of airpower.

The Heli-fighter

The armed helicopter has promising potential for close air support. Its weapon carrying capabilities are already matching many strike-fighters. Advances in modern technology are rapidly expanding the combat capabilities of armed helicopters. The tilt-rotor—a hybrid fixed-wing/rotor-craft, will have speeds similar to that of Fairchild Republic's A-10 dedicated close air support strike aircraft. Because of the importance of the tank on the battle-field, armed helicopter roles so far have tended to focus mainly on an anti-tank role. Increasing capabilities of rotary-wing aircraft are expanding its combat roles from an anti-tank one all the way to include air-to-air role and close support missions especially in mountain warfare. The time therefore, has come to describe the armed helicopter in

in its proper role and context as a 'helicopter-fighter', or *heli-fighter* for short. The expanding roles and capabilities of heli-fighters hold out the promise of their increasing employment for close air support missions, besides a large segment of combat support roles in which rotary-wing aircraft can enhance combat effectiveness of tactical airpower. There are a large number of factors favouring the use of heli-fighters for close air support:

- Heli-fighters could fill a vital gap in close air support capabilities under conditions when strike-fighters are either not available due to inadequacy of resources, or are unable to be effectively employed due to limitations of weather or terrain.
- Heli-fighters would permit much higher levels of responsiveness as compared to strike-fighters. Their deployment closer to the battle zone permits not only greater effectiveness due to familiarity with the ground oriented environment, but may also reduce reaction and response times.
- Heli-fighters would continue to be able to operate to more adverse levels of weather conditions as compared to strike-fighters. As against a weather-minima of 100 m cloud-base and 2-3 km visibility. In fact, broken clouds at low levels may provide excellent opportunities for surprise attacks and enhanced survivability.
- In mountain warfare, heli-fighters may provide the optimum weapons system for close air support.
- Under conditions of air superiority (both in respect of air-to-air and surface-to-air threats) heli-fighters can perform the task of suppression of anti-tank weapons; such weapons normally constituting too small a target for strike-fighters.
- Heli-fighters possess a degree of imperviousness against air defence systems. With their inherent capabilities for covert concentration and manoeuvre, the chances of detection by hostile troops are rated at less than 40 per cent. Radar-controlled and/or infra-red guided air defence weapons would face severe limitations against heli-fighters operating at extremely low heights and exploiting terrain effects.

- The air threat to offensive air support aircraft is expected to increase in future with the proliferation of AEW (airborne early warning) systems; but the heli-fighters in low-speed regimes are unlikely to be detected by most AEW systems. Detection probabilities by fighters, unaided by AEW systems would remain extremely low since the heli-fighters should be at lower heights than the fighters enhancing camouflage effect. Stealth technology measures (reduction of optical, radar, infra-red signatures etc) would further reduce the chances of detection by airborne as well as ground-based air defence systems.
- Adequate heli-fighter capability with armour formations can permit *blitzkrieg* operations with co-ordinated heli-fighter/armour thrust under an umbrella of air superiority and strike-fighters on interdiction roles.
- Heli-fighters provide the only viable solution for escort and close air support roles for heli-borne assaults.

A great deal has been written about the vulnerability of the heli-fighters. The facts do not support this view, at least in respect of ground-based weapons. In Vietnam, the U.S. lost 4,900 helicopters to ground-based weapons, mostly small arms.

But only one helicopter was being hit every 450 sorties; and one lost per 7,000 sorties. In the 1982 Lebanon war, Israeli loss rate of heli-fighters was in the order of 3 per cent: a figure reasonably comparable with most strike-fighter close support operations. Even this attrition rate needs to be seen in its correct perspective: that 50 per cent losses were attributable to friendly weapons; thus leading to a loss rate of 1.5 per cent to *hostile fire*. The survivability of heli-fighters has been significantly enhanced over the years, but its slow speed continues to be the greatest handicap. At present its survivability *within the effective firing envelope* of air defence weapons and small-arms fire must be rated as low. It is therefore, inevitable that, for quite some time to come, heli-fighters will need to be employed so as to keep them as far away from the lethal zones of hostile weapons as possible; and therefore, operate so as not to overfly the target/target area. Given its capabilities and limitations, the doctrine of employment of heli-fighters assumes great importance.

DOCTRINE

The doctrine for the employment of the heli-fighters in close air support role must find its roots in the principles and precepts for the employ-

ment of airpower: and it must seek to exploit the attributes of airpower; flexibility, versatility, concentration of force at the selected point in time and space, etc. The heli-fighter is the emerging weapons system for close air support: and the doctrine for its employment must be built around the time and battle-tested paradigms for effective air support operations. Broadly speaking the doctrines for the employment of heli-fighters need to expand the conceptual horizons beyond a limited anti-tank role by single helifighters, and should be based on a set of principles which incorporate a comprehensive approach:

- Air support to land forces is best provided through *joint operations*, with air and ground forces as "co-equal and independent" partners: this has greater validity with the wider application of 'combined-arms' doctrines. Heli-fighters have the additional advantage of their capability to operate from un-prepared shifting bases—as much as the V-STOL strikefighters like the BAe Harrier GR. 1. This flexibility needs to be fully exploited *within the existing close air support doctrine and organisation*.
- As in the case of the total spectrum of close air support, employment of the heli-fighters is likely to produce maximum effectiveness in *battles of movement and manoeuvre*, where its independence from fixed bases confers additional advantages. Logistics and communications will need to be suitably tailored to exploit this attribute.
- *Air superiority* is a vital adjunct, if not a pre-requisite to successful heli-fighter operations. Serious air threat is likely to emanate from hostile heli-fighters. Anti-helicopter air-to-air operations demand great flexibility and extensive training. This requirement would need to be built into force-structures, tactics and training schedules.
- Effectiveness of offensive air support flows from dynamic and psychological shock effects as well as actual kill-capabilities. Concepts of employment of heli-fighters must ensure that requisite weight of attack can be delivered at the selected point in time and space to achieve both. Great care must be exercised to ensure that heli-fighters are not committed piece-meal or in penny-packets. This may also necessitate centralisation of the command

and control at the highest level feasible to generate requisite flexibility, response, and concentration of firepower, especially since resources would inevitably be severely limited.

- Heli-fighters are no substitute for strike-fighters. However they can fill a vital gap in close air support capabilities in a role *complementary* to that of strike-fighter; especially when the latter are not available or unable to be employed due to limitations of resources, weather, terrain etc. The complementarity of role itself points the way towards the pattern of command and control infrastructure which could concurrently handle either, and/or rapidly switch air strikes from one to the other.
- Effectiveness of close air support by heli-fighters (as for strike-fighter) can be enhanced by *Combat support missions*. In fact, this is best achieved by integration of heli-fighter close support operations into the overall offensive air support doctrine : with the infrastructure for target development, designation, acquisition and forward air control of air strikes available for heli-fighters as well as strike-fighters.
- *Airspace management* problems necessitate unitary command and control of airspace in accordance with the basic principle of war : unity of command. Increasing complexities of modern battlefields and the heightened pace of air warfare are progressively reducing the effectiveness of ad-hoc measures like height separation, corridors, block timings, and lateral co-ordination. Increasing air threat in battlefield areas and the need to permit freedom of action for helicopter force would necessitate close co-ordination amounting to integration with air defence organisations and air superiority forces and capabilities; and this can be achieved only through unified command and control of airspace. Command and control of airspace in modern wars naturally generates greater demands for secure communications, rapid data-handling systems and organisations optimised for combat-effectiveness : and unified command and control of airspace provides the cost effective solution for the future.

FORCE STRUCTURES

Once the doctrines for the employment of heli-fighter is clear, it is easier to design force structures which optimise combat effectiveness. It would, of course, be quite logical, and simpler, to pattern the force struc-

ture along the lines of that for strike-fighters. This approach would not require any changes to existing close air support organisations and procedures : and absorption of the heli-fighter as the emerging weapons system for close air support would be easier. However, this approach may not be able to exploit the special attributes of the heli-fighter : the VTOL capability, its ability to operate extremely close to the ground, greater responsiveness, and so on. As it is, strike-fighter forces structures for offensive air support in future battlefields need a review to enable greater integration with combat support capabilities.

A new approach to force structure planning is required if the full potential of heli-fighters is to be realised. In fact most armed forces are already adopting new structures according to their needs and perceptions. The RAF *Harrier* force in West Germany provides a good indicator of the optimisation of a V/STOL fighter (and heli-fighter would fall in that category) for close air support organisation. However even this pattern falls short of the needs : and in actual practice the structure relies on *assignment* of airlift and air control resources, rather than their *integration with Harrier Squadrons*. This is workable, and inescapable in view of the problems of integrating fixed-wing and rotary-wing capabilities into single formations beyond a certain stage. However, it should be feasible, and in fact, necessary to integrate heli-fighters with supporting elements so that composite firepower-fire control — logistic support teams enhance the effectiveness and responsiveness of the force. The basic principles for design of heli-fighter force structure will need to take note of the requirements for :

- *Combat element* of heli-fighter force, especially that dedicated to close air support;
- *Combat support element* which could provide battlefield information, and undertake tasks of target development, and control heli-fighter air strikes. This element, of course can be equally effective for employment of strike-fighters;
- *Logistics and maintenance support element* for both elements. This would necessitate :
 - adequate heliborne capability,
 - autonomous infrastructure to support flying operations,
 - ground mobility for supporting elements (including refuelers etc.);

- *Operations and administrative infrastructure* with requisite communications, and ground survivability;
- *Suitable integration into overall offensive air support* command, control, and communication infrastructure.

Combat Element. Heli-fighter tactics will require operating in pairs as the basic subunit. In many cases two such sub-units may need to operate as a section in close co-ordination with each other to provide mutual support and increased weight of attack. To ensure availability of one mission-capable pair at any time, three heli-fighters would need to be made available at the field location. Thus one flight of heli-fighters would need to hold six machines plus reserves for routine maintenance and unserviceabilities. A *heli-fighter squadron* of two flights may thus hold 12 mission-capable aircraft, with reserves being held in the maintenance element.

Combat Support Element. A combat support element integral to the heli-fighter formation would enhance their effectiveness. This element will need to be capable of undertaking:

- battlefield reconnaissance and 'scout' operations;
- airborne-FAC tasks including battle-management of heli-fighters;
- electronic warfare to the extent possible.

An *air-control squadron* capable of performing these tasks as its primary role may be equipped with four mission-capable helicopters, with another two as maintenance reserve. These helicopters will have to be light, highly manoeuvrable and equipped with appropriate navigation aids, communications with ground and air forces, and electronic warfare capabilities to the extent possible. It would be highly desirable to provide air-to-air-missile capability for air control helicopters. Specially designed fixed-wing aircraft, like the USAF OV-10 day/night FAC aircraft or the Argentine IA-58 *Pucara* could meet the requirements as well. In the long run, remotely-piloted-vehicles would replace the helicopter in most of these roles, except that of air control/FAC; but in the interim period, they will need to be integrated with air-control, squadron, if not actually made an organic part of it.

Maintenance Element. A centralised *maintenance squadron* could undertake scheduled maintenance inspections and major rectification, with

field maintenance capability remaining organic to the heli-fighter and air-control squadrons. This would naturally involve holding of the maintenance reserve aircraft in the maintenance squadron. Such an arrangement would leave the operational elements free of the administrative and maintenance 'tail'.

Support Element. Supporting elements need to meet two requirements: logistics support, and administrative support. The former requires helicopter air-lift capability to keep up with rate and speed of mobility of heli-fighter operational elements. In addition, ground mobility capabilities will also need to be matched to the overall mobility requirements of the formation. The administrative support in this context implies the infrastructure to support flying operations; for example, air traffic control facilities, signals and communications facilities, and safety services. Their ground mobility and semi-autonomous capability may finally govern the mobility and flexibility of the complete force. Ground survivability capability of the force, against both air as well as ground threats, will need to be ensured: and this could be organic to the force, or provided separately.

Command Structure. In order to ensure that all elements of heli-fighter force function in an integrated cohesive manner, it would be essential to group them under one source of command and control: for operational, functional administrative and technical functions. A heli-fighter wing headquarters with requisite operations staff (and a couple of light helicopters for liaison and communication) could serve the purpose. The important point is that the operational elements of the complete Heli-fighter Wing must be provided with the requisite capability for mobility. So that responsiveness and effectiveness is maintained at the highest level. A tentative organisation for a Heli-fighter wing is depicted at Chart 1.

1. *Command and Control*

Any organisation is only as good as its command and control infrastructure. It is, therefore, necessary to define the chain of command and control for the employment of Heli-fighter Wings. Since the very justification for a Heli-fighter Wing lies in its role for close air support operations as complementary to strike-fighter operations, it would be logical to integrate these wings into the chain of command and control for close air support. However, unlike strike-fighter wings, Heli-fighter Wings would be employed in a mobile role. It is, therefore, necessary to provide a command and control chain which is adequate to meet the specific needs. This should flow from a Joint Operations Centre in the TAC (at Corps level), where

PROPOSED ORGANISATION

Chart 1

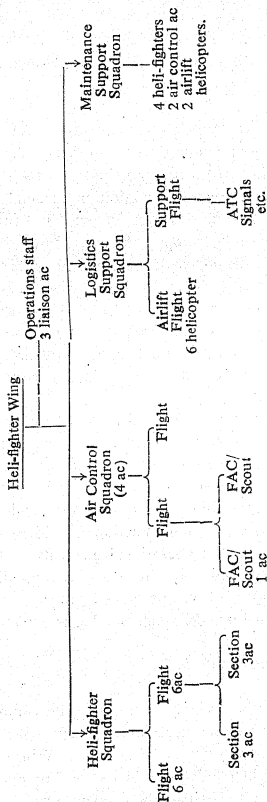
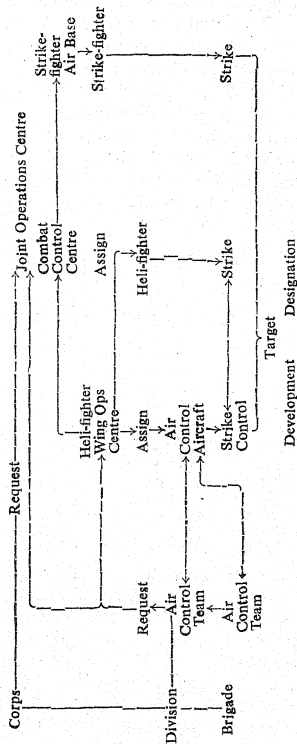


Chart 2.

HELI-FIGHTER CLOSE AIR SUPPORT

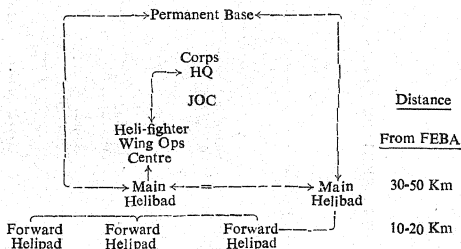
1. Command and Control



a strengthened operations staff in the form of Combat Control Centre would be required. Its functions would be to assign priorities and targeting for strike and heli-fighters, co-ordinate combat support missions, and integrate close air support missions with the fire and movement plan of the ground forces. For execution of heli-fighter and air-control tasks, the Heli-fighter Wing may need to set up an Operations Centre, which would be located as close to the JOC or the main helipad serving it. At least two *main helipads* may be necessary for effective dispersal : with three odd *forward helipads* for every main helipad, where fuel and weapons could be prepositioned to enhance turn-round and responsiveness. As and when remotely piloted-vehicles can be introduced into the air support system, its control centre could be integrated with the Heli-fighter Wing Operations Centre. One possible model for heli-fighter close air support command and control is depicted at Chart 2.

HELI-FIGHTER CLOSE AIR SUPPORT

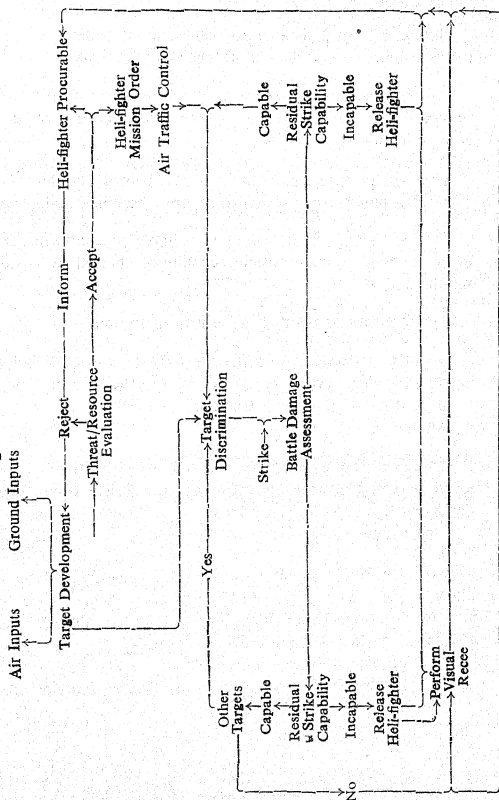
2. Development



Air Control procedures for heli-fighter operations will need to be based on the doctrines and structures discussed so far. One paradigm of these procedures is outlined at Chart 3. Communications and facilities will, ofcourse, need to be tailored to meet the requirements of operational efficiency. Refinements to the doctrines, structures and procedures can be brought about by simulated and actual exercises in peace-time so that the organisation responds effectively in war. The heli-fighters can be effectively employed on many other roles besides close air support : interdiction, anti-helicopter operations, escort for heliborne operations, commando missions, and armed rescue etc. A discussion of these roles is beyond the scope of this paper : but it may be noted that the doctrines, force structures and procedures for heli-fighter close air support operations can effectively extend to these roles with minimal changes.

CHART 3

Heli-fighter Air Control Procedure



CONCLUSION

In the final analysis, some conclusions may be drawn in respect of the optimum employment of heli-fighters:

- They can play a definite role in close air support of the land forces subject to certain over-riding considerations:
- An increasing degree of favourable air superiority (even though limited in time and space to cover the specific helicopter operation) is a pre-requisite,
- Greatest pay-offs lie in their employment in battles of movement and manoeuvre especially of armoured/mechanised forces,
- They would appear to be more suitable to complement strike-fighter operations under specific conditions affected by terrain and weather,
- They are seen as another element of air power.
- In order to derive the greatest pay-offs in respect of heli-fighter operations, they need to be integrated into the existing time-tested command and control structure for offensive air support operations.
- Helifighters cannot replace strike-fighters. Priorities in allocation of resources, therefore, must be carefully weighed and a natural tendency to allocate greater resources for helifighters at the cost of strikefighter capabilities must be resisted.

Helifighters constitute one more element of air power, and they must be seen, understood and employed in keeping with the principles of air power employment. Foremost amongst these is that of unity of command of air space: based on the essential and incontrovertible fact that air power is indivisible. Disregard of this principle could even under the best circumstances, a sub-optimal utilisation and at its worst, lead to military disaster.

Air commodore Jasjit Singh at present is working as a research fellow at the Institute for Defence Studies and Analyses, New Delhi. The views expressed in this paper are his own and do not necessarily reflect those of any organisation.

A CASE FOR AN INDIAN RDF

CAPTAIN K. G. RAMANI

INTRODUCTION

FROM Kashmir to Kanyakumari we are one' we read everywhere—yet very blithely we forget that the Southernmost part of India is not Kanyakumari but Pygmalian Point in the Nicobar groups of islands. The same sense of casualness has perhaps permeated into us when we talk of defence of these and other islands territories.

There is a lot of mineral wealth in the oceans around us, and for a world which will soon run short of both its precious mineral and food resources on land for its teeming millions, specialists point to the oceans as the only viable alternative. Already there is a lot of activity in deep sea mining techniques (with USA being the undoubted leader in the field) and now in most of the advanced ocean based countries some of their mineral oil resources are tapped from the sea. Experiments are also being conducted by biologists to see whether a particular type of sea weed, besides the fishes would provide the required nutrient food substitute. These remote islands in that case would become quite important. Future economics aside, some of these islands are placed quite strategically on the important sea lanes and this more than anything else today, dictates the importance of our outlying island territories.

Lest it be misunderstood in some quarters, the Rapid Deployment Force (RDF) being recommended in this article is only for the safe-guarding of our territory unlike the connotation it conjures up, seen in superpower analogy.

Geo-Strategic Importance of the Islands

Andamans and Nicobar Group of Islands. Situated 1200 km from the mainland (i.e. India) and geographically a part of the Indo Himalayan mountain chain running from Himalayas through Burma to the Indonesian basin, and only 72 km off Sumatra; these are a veritable source of trouble. Located at the door as it were, these islands command the entrance of the Malaccan Strait; a fact which in 1942 prompted the Allies to undertake

Operation Buccaneer' in their effort to clear these regions of the Japanese Imperialism. It is even to this day important to the Japanese, whose major requirements of oil flow through these straits. To the Russian Eastern Navy at Vladivostok trying to outlast the winter and reach the warm Baltic these straits are yet important. Axiomatically therefore for the Chinese who perceive these cross movements of the Russian ships as a move to encircle China from the South these straits are yet again important. Sitting placidly amidst all these turbulent turmoil are the Andaman and Nicobar group of islands. With the alignment survey for canal across the Kra Isthmus having been recently concluded these Islands gain further importance; as then they would dominate both the Kra and Malaccan strait. With gas deposits having been struck just 30 km off Port Blair and a proven rich deposit of manganese nodules in the adjoining sea bed; it is not surprising that a group of Indian businessmen from Hongkong—Singapore have proposed to both finance and set up a free port on the lines of Hongkong on Great Nicobar.

Lakashadweep Group. These group of islands located 130 km from the mainland dominate all the coastal shipping on our Western coast. They also dominate the international shipping route immediately South of them passing through Sri Lanka. Situated as they are they dominate the Red Sea, (i.e. by being 130 km closer to it as compared to the mainland), through which most of our own needs of oil and that of the rest of the world passes; hence their importance. With Gan Islands in Maldives not being immediately available to the super powers these islands could attract the attention of both the super powers. If not for anything else, at least for monitoring the movements of the one by the other in Gan.

THE SEA LAW FACTOR

In the last Sea Law conference it was decided that besides the territorial waters of 12 miles applicable to any littoral state a further 200 nm extending from the mainland would be the Exclusive Economic Zone of that adjoining littoral country. The non ratification of this conference, casts a dubious shadow of doubt over the status of its contents. With present non ratification and the distinct possibility of a future non-ratification due to holding out by the USA; these laws have been interpreted in various convenient ways.

In the light of above India may not gain 200nm EEZ from it's coastline but gain something in addition if measured from the outlying

islands: conversely she may gain only the EEZ as measured from the mainland, in which case any economic exploration West of Lakshadweep would be almost impossible. The more important factor would be the status of Andamans Nicobar vis-a-vis Coco Islands (belonging to Burma and only 20 km away from Andamans) or vice versa; depending on whether and when some mineral exploration is possible at a future date. Notwithstanding the present delineation of our maritime boundary with Indonesia, the Nicobar group of islands are only 72 km off Sumatra, and part of the great Indo Himalayan ranges extending into the sea, where geologically it is more probable to strike oil and other minerals; would our boundary then seen in the Sea Law context, still hold?

Politico-Military Capabilities

In all such discussions the first thing to be considered is what is the danger to these islands. While it would be impertinent to speculate on the future political capabilities, especially when we have delineated our maritime boundary with most of these countries, it would be prudent to consider the recent historical facts and the undisputable military capabilities of these countries.

It is not a common knowledge, but in 1947-48 Pakistan tried to occupy Lakshadweep group of islands as the population is predominantly Muslim. This attempt at occupation was just thwarted by a couple of our ships reaching in time. More recently there was some press report in Sri Lankan newspapers, (which was subsequently denied) about Maldives laying claim to one of the islands in the group. With the undoubted interest of the superpowers manifest in the neighbouring Gan island, let us not rule out the possibility of a vassal littoral state in the region being prompted at another adventurous action, under the aegis of the superpower (when we are otherwise militarily engaged on our land frontiers).

At the height of our 1965 conflict, Indonesia volunteered to open another front, based at embarrassing us and thus helping our adversary. That, it did not come about is another matter, it is also a different matter that our maritime boundary were agreed upon after that, but what is material is the fact that even as recently as the Sea Law Convention Indonesia wanted the Indian Ocean called Indonesian Ocean. What the portents of these are is for anybody to guess.

Militarily, at the moment Indonesia has roughly 5000 marines (i.e. a brigade approximately) with a few Landing Craft Tanks/Utility (LCT/

LCU), Thailand has approximately two battlions worth, whereas Burma has approximately 500 marines (i.e. a battalion worth). Pakistan at the moment does not have a blue water navy—but for how long?

MILITARY ASSESMENT

Militarily our future adversary will try to initially capture the major air heads (i.e. airports) and a couple of naval anchorages to be able to sustain his force. To effect surprise and for early capture of the much wanted air head he may employ air borne troops. Any of our potential adversary has the capability of delivering upto a battalion strength of these troops within the existing capability on any chosen island. As these islands are seperated by large distances and the adversary can pick and choose the islands to be attacked in isolation, the defender will have to be ready to meet the major threat on any of the potential islands. In addition, to the air borne action the adversary can put ashore two battalions to overwhelm the one battalion that the defender may have put ashore. In addition, the adversary may have a greater rate of being able to build up than we ourselves can.

How do we counter such a threat? We have two options:—

- (a) Station a brigade strength each to counter the enemy brigade on each of these target islands. In this case we would require almost a division to be stationed in Andamans and Nicobar group of islands and upto a brigade on Lakshadweep.
- (b) Station only a monitoring force, say, a brigade, capable of both monitoring and warning of the move of the adversary; as also to be able to resist the adversary for a reasonable time within which our forces can be built up.

In the first option of stationing upto a division, we may never have an opportunity of usefully employing these forces, as the threat to them as seen now is at best nebulous. Would we like to tie down a division on such a nebulous task? Added to this is also the fact that the cost of maintenance of even the one battalion that we have in Andamans and Nicobar is almost prohibitive, as almost everything is imported from the mainland. Also were such a force to be stationed in Andamans and Nicobar how fast could they be effective in, say Lakshadweep. With things obtaining as they are at present, we have only one infantry battalion trained in amphibious operation available for ready employment—would this be sufficient and can we employ this effectively if we are to uncover the rest of

the islands? Presuming that logistic allowed it and we did station a division on these islands would the navy be willing to station as many ships along-with both for training and if required for trans shipment? The long and short of it, seen from the angle of centralised interservice training, effective employment and logistics is that, we cannot afford to station such a large force permanently on these islands. What then is the answer, for the requirement of such a force cannot be denied. The only viable answer is in our having our own version of the RDF for the defence of these islands.

CASE FOR THE RDF

Assumptions. While advocating the case for the RDF the following basic presumptions have been made:—

- (a) A brigade is stationed at Andaman and Nicobar group and a battalion worth in Lakshadweep to ward off the initial invasion.
- (b) That the threat to both Andamans-Nicobar group and Lakshadweep will not be simultaneous.
- (c) Any misadventure against these islands will be undertaken when we are otherwise militarily committed on our land frontiers.
- (d) Any infantry battalion operating in these islands will not require the same complement of vehicles as authorised to a normal battalion.

A Maritime Division suitably located with a brigade each on the Western and the Eastern coast and a brigade in Andaman group) could effectively centralise its training with the Western and Eastern naval fleets in the execution of their task. Quite obviously this Division would have to train with its fixed complement of the Navy as also the Air force in such tasks as beaching, naval gun control; aero trans-shipment of men and equipment, aero evacuation etc. Being located close to the coast they could be moved immediately by both air and surface ships. It could be employed within reasonable time (say three days) on any of the island groups. The infantry components of the division being shorn of their major transport could easily also be air lifted. Also, because of their possible employment pattern, most of this division would have to be trained in both air borne and amphibious operation. As a component of this division would already be located in these island groups coordination would be that much simpler. The heartening aspect of having such a force would be

that it could be employed internally, with only a few modification or contingency training with requisite stores and equipment held as sector reserves. This then, would meet the defence needs of both the island groups, and give an additional division trained and equipped almost on lines of air borne division for a very minimal investment of having to station a brigade in the Andamans.

CONCLUSION

Finally, in the words of Peter Polomka, of The Institute of South East Asian Studies 'For regions as SE Asia "Ocean Issues" will inevitably grow in importance—in brief all of main sources of world tension are evident—East-West, Sino-Soviet, North-South, as well as those arising from regional interests. . . .' Let us therefore beware and be armed.

TERRORISM

LIEUT COLONEL PARMODH SARIN

OVER the years, particularly for the last decade or two, terrorism has established itself as a serious force available to those who do not support a particular Government, Regime or State. Violence has always been an integral part of politics, but only in recent times has it acquired this new dimension of terrorism. Primarily the news value of a specific act has made the terrorist as a sort of anti-hero who is actively projected on the television screen, he makes headlines in the press and well known newsmen seek interviews with him. The political impact of terrorism is thereby egged on by the media stampeding fear into Governments and the public as the breed of urban guerrillas, imbued with the romance of the revolution mount a concentrated assault on the shrinking democratic world. Recent murders by extremists is the manifestation of this global culture of senseless killings, kidnappings, dramatic skyjackings and bloody bombings—all aimed at holding Governments to ransom. Availability of modern weapons, communication systems and financiers has made it easier for terrorism to thrive. Now that terrorism has come to be a sort of flourishing trade it is relevant to discuss various factors which have allowed this menace to grow and also to examine venues open to the legitimate Governments to control it.

EMERGENCE OF TERRORISM

Never was this social phenomenon, of acts of terrorism stimulating other acts of terrorism on and on, more apparent than at the beginning of the twentieth century. World politics after 1945 were dominated by two main themes: the disintegration of the old colonial empires and the stalemate between the super powers brought about by the threat of mutual destruction in a nuclear war. The scenario was one not of peace but of 'unwar', with Russians and the US using revolutionary movements of the right and left surrogates to fight on their behalf battles which neither dared fight themselves. Colonial empires also started groaning more vigorously under the foreign rules. The rulers like Britain, France, Holland had suffered humiliation in the second world war and were themselves under severe economic and political strain. Therefore, wherever wisdom dawned

on these empire builders freedom was granted early and this checked communism from growth in the concerned colonies. However, their dilly-dallying in other areas and also in some cases the weaknesses or otherwise of legitimate Governments allowed terrorist squads, duly sponsored by communists in particular, in taking charge of the population(s) disenchanted with the war time hardships and controls. Even though USA was fairly quick in grasping the gravity of situation their involvement in Korea did not allow them reasonable time to join the fray. Nevertheless, American efforts to fight communism started growing and they too took on the task of sponsoring terrorist groups wherever they could. Basically, these people were from decent middle class back-grounds who either wanted to refine the Western society or were looking for improvements in the communism. They were the young idealists, the nuclear disarmers and moderate socialists who were sucked into violence, the gentle people who wanted to remake the world and turned to murder in order to do so. These are the saddest of the terrorists and in the end the most ruthless because, more often than not, their ideals slip through their fingers and only blood is left.

With the superpowers thus taking sides it did not take long for the Mau-Mau in Kenya, EOKA in Cyprus and the communists in Malaya to emerge as strong terrorist forces. Mao Tse-Tung's People's War in China with his guerrillas swimming like fish in the sea of the people, showed what could be done by the dedicated fighters. Castro, Che Guevara and others including Palestinian leaders provided necessary refinement to the theories. Hijacking, by people like 'Laila Khalid' and by 'Carlos' wherein he kidnapped all OPEC ministers while in a conference, provided a romantic vision to the World's youth in the cause of new creed. Of course, the real catalyst came in the form of long drawn Vietnam war where both France and US learned, refined and provided necessary reference material to the disgruntled youth all over the world who had only been looking for suitable openings in the field.

WHAT LEADS TO TERRORISM?

The planning of an act of violence involves so many different interests that there is no telling where it will lead to, or what the final result will be. The process may start with one man, or group, fired by the political belief that it is a good necessary one. It cannot be achieved through argument and the conventional means of persuasion. The opposition is too powerful and too entrenched. So a short cut is called for. The zealot, often neurotic and self-obsessed, never pauses to reflect that perhaps his aim is unreasonable, and unacceptable to a majority. The aim could also be the

release of fellow terrorists, or it could be specific demands for funds or other concession or just to terrorise so that the people are reminded that a neglected cause exists (Munich Massacre is an example of this). Such acts besides stretching the Government resources allows the sponsoring agencies also to keep the terrorist squads trim and trained. Propaganda mileage is an added advantage because then it can be claimed that the terrorist leader looks after followers. The victims and their families presenting a picture of sorrow and grief back home are also likely to weaken the official stand on the issue and thus act as a point scored by the terrorists towards whatever cause they have.

But, primarily terrorism is the stratagem of the weak. It is the first resort of the coward and the last resort of the man whose beliefs cannot stand the light of reasoned examination. The essence of terrorism is to sow fear, to make heroes out of murders, and thereby to convince opponents that the terrorists' cause is right and the authorities are wrong. What keeps the terrorists on the job relentlessly is one hope that eventually the public will get fed up and tired of endless news about killings and bombings and finally may come to believe that the nation is faced with an insoluble problem. This attitude at best could be described as 'fatiguism' and it was the final factor in a number of colonial guerrilla wars fought by the British in Ireland, Cyprus etc and by the French in Algeria and Vietnam. However, there is a subtle difference between the guerrilla warfare and terrorism. The former is conducted by unconventional means but with real military aims and targets; whereas terrorism is indiscriminate in both. It is planned for public effect, not for military objectives. Brain Jenkins—Research Analyst in Terrorism at the Rand corporation and advisor to the US State Dept on political conspiracy and violence says, "Terrorism is theatre; it is aimed at the people watching, not at the actual victims". Often enough innocent bystanders, air line passengers etc. do stand to lose life and limb simply because they happen to be there when the terrorists were in the actual process of their theatrical display. What the terrorists really does is to apply the well-tried techniques of the gangster and black-mailer to political situations. In the process he dresses it up and packages it as a splendidly contemporary piece of ideological finery. Among the terrorist bands hardly any recruits come from the grass root level. It is normally the fancy gun slingers like 'Carlos' who hit the head-lines. The public image built by Illych Ramirez Carlos alone has lead to any number of money—spinning books and novels with him as the main character. The halo acquired by this one man alone is enough for motivating misguided elements elsewhere.

PSYCHOLOGY OF TERRORISM

Terrorism like many other crimes of insanity, is infectious. It perpetuates itself. It causes itself to happen. One incidence causes two more, which causes more and more incidents. Carlos Marigheilla Fidel Castro's associate codified the aims of terrorists and the methods to achieve them in his (now legendary) Mini-manual for Urban Guerrillas published in 1969. He said that terrorists (or urban guerrillas as he calls them) must use revolutionary violence to identify with a popular cause, and so gain a popular base. This leaves the Government with no alternative except to intensify repression, thus playing into the hands of the terrorists.

A well known psychologist has said that terrorism can only be prevented by a state prepared to risk the lives of innocent bystanders, including women and children in order to prove that terrorism does not pay. But the public opinion and almost certain destruction of men and materials in the hands of terrorists, more often than not, make the Governments relent. Some well-known terrorists leaders claim that violence was not simply a means of ending an injustice (real or imaginary), but also an improving element in itself. "Violence is a cleansing force, it frees the native from his inferiority complex and from his despair and inaction, it makes him fearless and restores his self respect".

The above analogy was adequately demonstrated when the state of Israel was in the process of emerging as one of the outcomes of the world war II. Persecuted Jews had finally decided to terrorise the locals so much that they were forced to leave their homes thereby allowing more room for incoming Jews. Israel had formed terrorist squads under 'Irgun Zuai-Leumi' in the earlier stages and the group played a notable part in the foundation of the state of Israel. The group set about mounting a deliberate campaign of bombings and killings in Palestine. As if the wheel has turned full circle and now we have Palestinian refugees using the same methods, albeit, of 'Jewish terrorism' in order to justify their own acts in the same style. Only changes, if any, could easily be attributed to technological advancement and super power rivalries. Both the parties are learning the hard way that 'terrorism breeds terrorism', and that more it succeeds more attractive it appears to potential supporters. Leaders on both sides have no choice but to continue in the same strain because any flagging of interest on their part could easily lead to their downfall.

TERRORISTIC DOCTRINES

Nuclear war doctrines are in essence, terrorism practised by Industrial States legitimated by the people of the Industrial world. Under the nuclear

doctrines entire population and nation are held hostages to threats of mass annihilation. They constitute a repudiation of the 'Hague Convention' and a crime against humanity under Nuremberg Laws. Yet the people of Industrial nations have been conditioned to accept these terroristic doctrines as legitimate strategy for their security. A consequence of this conditioning is the rise of terroristic groups in the Industrial nations who employ the same logic of deterrence and compellence derived from nuclear strategic thought.

Terrorism is ultimately derived from the ability of a small number being in a position to cause injury or death to its victims in a spectacular manner to have a demonstration effect and then use it to achieve their objectives. Currently hijacking of aircrafts and holding of hostages are two most favoured forms of terrorism. In this also hijacking rates higher because more often than not the aircraft generally carries passengers of various nationalities and some one of the other is likely to put pressure on the Government on which terrorists demands are being made. Besides 'more innocent the victims, the greater is the shock value', seems to be well-tried and established theme behind hijacking. This form of terrorism is also carried out to give publicity to a cause. Main ingredients of a hijack would be a 'stage' a setting and actors. Freedom of press is also an essential requirement. For, the instantaneous press and television coverage and the superficial relationship between nations and situations throughout the world are much closer and more immediate than in the past. The impact of terrorism is more speedily apparent.

FOREIGN SPONSORSHIP

Modern weapons are expensive and till such time the leader has acquired adequate standing to draw volunteers and funds he will almost always need friendly outside help. Border States are therefore, almost always prone to development of terroristic activities. It is in the interest of not so friendly neighbours to generate a state of instability in the border areas so that they could exploit the situation if and when direct conflict occurs with the legitimate Government. A disturbed condition also gives psychological advantage to such neighbours. It is evident that presence of terrorism in a border-state facing internecine conflict could easily trigger new patterns of outside intervention. For instance, in order to help dissidents seize political power, the leaders might despatch own forces to assist the process particularly if they are convinced that the revolutionaries are bound to succeed anyway. Therefore, in order to prevent the border

areas from becoming happy hunting grounds for not so friendly neighbours it is essential that the dissidence is never allowed to take a violent turn because terrorists could easily capitalize on the situation.

TERRORISM IN OUR CONTEXT

Last two years or so have given enough proof of the factors which make terrorism flourish. Frequent hijacking of air line planes, killing of innocent bus passengers or unknown victims were primarily designed to evoke reaction from the Government. The terrorists' main hope in such a setting is to create a situation where more and more people find themselves in tune with the cause. Mostly these citizens do so out of fear for their own lives and property. Therefore, it is essential that the state machinery should nip the menace in the bud and allow for politicians to gain confidence of their followers. For then only the majority can be convinced that there is a solution other than violence available.

HANDLING THE TERRORISTS

If the terrorists have a well-defined base, some properly identified leaders and areas of operations it is comparatively easier to deal with them. Inadvertent harm to innocent persons dwelling in the vicinity of the terrorists, however, cannot be ruled out. Many terrorist groups, such as the Red Brigade in Japan or the 'Bader-Meinhauf' Gang in West Germany, do not reside in well-defined regions. Lacking as isolated territorial base, these groups are immune from the type of chastisement necessary for breaking the back of any terrorist activity. The only defence against such groups would seem to be greatly increased surveillance, a policy that presents unwelcome risks of abuses by authorities and consequent propaganda gains for the terrorists. Therefore, punishment for improper use of force or authority by the security forces must be very quick and well-broadcast. This will enable the official machinery to negate the impact of indiscretion on the civil population. It is not unusual for the local police, administration etc to be kindly disposed towards terrorists either due to fear of reprisal in case of any contrary leaning or they might be themselves inclined sympathetically towards the terrorists aims and objectives. The job of security forces in such cases becomes all the more difficult and challenging. Therefore, in view of the fact that terroristic activities are ever increasing it may be a better idea to have a suitable mix of people from different regions at the working level in police force and tehsil etc. These outsiders having no local bias are expected to be alert towards the situation and thus

give adequate warning before a situation can get out of control. An argument against the idea could be the language problem. However, this is not unmountable and with suitable inducements like promotions and increments any body could learn the rudiments of local culture and language and the system would stream line in due course of time.

Secondly, in trouble prone areas/regions suitably trained manpower i.e. anti terrorist squads could be kept at district level. These squads should be under the army (Sub Area/Stn) control and not that of the civil administration. Because, putting them under civil administration would make them open to any infrequent abuse for settling scores and thus besides bringing bad name to the security forces would also give a propaganda point to the terrorists. Such squads could be a mix of trained demolition experts for dealing with bombs, letter bombs and grenades etc. and also that of trained commandos. Mobility and signal communication will be absolutely essential for effective and swift action.

Hardcore terrorists are normally unemployed/under employed young men and women who build up a feeling of resentment against the system for not having given them (what they think is) their due. Dismissed/discharged members of armed/paramilitary forces are also almost always in a hurry to lend their expertise gained during the service to the terrorist cause. Because they have a score to settle with the system they are suitably primed and motivated to be taken advantage of by the leaders of such groups. It will therefore, perhaps be, worthwhile to examine the feasibility of some kind of rehabilitation plan even for such members of our forces. It is not uncommon for deserters to have joined dacoit gangs and subsequently cost a lot to the state in terms of manpower, money, time and energy expended in tracking them down. Therefore, it is felt that even a comparative analysis of cost effectiveness of rehabilitating the erring members of our forces viz a viz leaving them on their own is likely to reveal that in the long run it is cheaper to look after such men also. Help from well-trained psychologists, public spirited organisations and experts could be taken in providing corrective action and thus restraining this trained manpower from falling into the terrorist fold. In any case monitoring their activities immediately after the dismissal/discharge could pay rich dividends. As, more often than not they return to the home base/village after removal from service local authorities could easily keep a watch over them till such time they have found gainful employment.

CONCLUSION

Willy-nilly we in India have also been sucked into this vortex of terrorism. Therefore, more often than not our officers and men are being called

into assist the civil authorities. Apparently, our training of young officers and men needs to be suitably modified. In that, basic design, contents, action of crude bombs, letter bombs, grenades and weapons ought to be taught so that the men develop confidence in their ability to deal with this onerous task. Ammunition Technical Officer (ATO) of Ordnance who have been frequently called in for destruction/removal of these bombs etc. could share their experience with other arms and services. In fact, it may be worthwhile to examine the feasibility of training some members of paramilitary forces and also of police in dealing with such dangerous tools of the terrorists trade so that immediate counter action could be taken in the absence of experts.

The world today is entering an era of crisis when the economic growth is slowing, stagflation is becoming a regular feature and unemployment is growing. Besides, a number of subnationalist secessionists are also emerging. All these factors are likely to contribute to increasing social and political turbulences in which terrorism will find a congenial atmosphere to flourish. It will be in the interest of the legitimate Governments to be suitably prepared to meet such challenges, for then only will the law-abiding citizen sustain his faith in the system.

WHITHER DELEGATION AND SUBORDINATE DEVELOPMENT

BRIGADIER JS CHANDEL

INTRODUCTION

A large number of junior and middle piece officer of the Army complain about the lack of responsibility in their jobs, over centralisation, over supervision, zero mistake performance, intense, competition and lack of subordinate development. Most of these young officers are intelligent, mature, qualified and capable. Yet frustration is writ large on their faces as they are not allowed to do their job as they would wish to do so.

Most of the readers would agree with the general environment prevailing as mentioned above. One often hears such remarks as "There is no peace in peace areas. There is fire on everywhere" and so on. This is a serious situation and over the years it has become worse. Some immediate fall outs of this syndrome is the declining standards of our individual training, increased number of requests for resignations and pre-mature retirements, mounting cases of heart attacks, ulcers and hypertension, in this age group of officers, and more seriously, little job satisfaction and same frustration. Cumulatively, the Army has become one of the least attractive professions for the bright young men to join in.

Frankly, most sub units commanders (coy level and equivalent) are merely trying to earn the mandatory criteria command reports before they can slip away to easier and ERE tenures. Very few unit commanders would like to commnd for a day longer than what is barely essential. A posting order, relinquishing command appointments is welcomed with visible relief and considerable joy and celebrations. Obviously, there is something wrong in this sort of situation. In fact rather disturbing and we should sit up and take a serious note of the problem and study its ramifications and remedies in depth.

CAUSES

CAREERISM

Over the years, we have gradually drifted from professionalism to careerism. Some would ask what is the difference. The Chambers Twentieth Century dictionary describes careerism as "One intent on his own advance-

ment'. The Reget's Thesaurus puts it more bluntly as 'Selfishness'. Perhaps, this trend is a fallout of the deteriorating moral, ethical, social and economic values in our society as a whole. The inevitable result and rapid industrialisation, the corrupt political system, and an educational system which is adrift. An officer product which comes out of this environment cannot, therefore, be any better sample of the society than what others are. I have often talked to bright young majors, aspiring to be Major Generals, saying there is no problem at all if the cut throat competition, increased tension and zero mistake performance has come about in the Army. They argue that in any other profession in the civil side, the same is equally true if not more. Therefore, why should we be un-necessarily worried about the careerism replacing professionalism. The readers would agree that there is a considerable difference in the ethos of any Army profession vis-a-vis the corporate sector. Army is there to win wars. This involves working harmoniously with all who are engaged in the defence of the country. Certain amount of comradeship is essential. Proper leadership, confidence amongst junior training and developments of sub-ordinates all go into making a happy, effective and battle winning team. A careerist would find it rather difficult to achieve the desired results in WAR. Therefore, we would rather do without such individuals, than have them shot through their backs by their own men, because they shall jeopardise not only national interest but also the valuable lives of their colleagues and men under command.

ZERO MISTAKE PERFORMANCE

The commanders at various levels are not prepared to accept mistakes and lapses. This is more applicable at Unit, Brigade and Divisional levels. Admittedly, mistakes of serious nature cannot be allowed to go unnoticed but even minor ones made by junior officers assume disproportionate adverse remonstrations. This is a direct fall out from the careerist syndrome. A hierarchy of fear is generated at different levels. To ensure no mistake in any training, administration or sports event, there are at least two steps higher rung officers carefully watching, (in fact wasting their valuable time) monitoring, tutoring and advising the officer incharge to ensure no mistakes take place. How is the officer doing a job going to get confidence in himself, by such over supervision. Nothing is left to his initiative, creativity or resourcefulness. If he is not going to fret, fume and frustrate, I do not know what else he would do.

INADEQUATE UNDERSTANDING OF MAN

Many commanders hesitate to delegate responsibility due to inadequate understanding of the capabilities of their sub-ordinates. Sometimes a few

tested and trusted officers are the ones continuously flogged horses. Others lose interest and a sense of apathy comes in. This is not a very good situation for the health of an organisation. All officers are never of the same ability, but to ignore those of mediocre capability is not the correct approach. The rule should be each according to his aptitude and ability. The sub-ordinates would quickly understand this and even appreciate your judgement.

REGIMENTAL PRIDE

Regimental pride is a healthy trend to any unit. It is the foundation on which valuable traditions, genuine pride, esprit-de-corps, co-hesiveness and group identity are built. More than anything else, it was this factor which was exploited by the British to obtain the highest possible performance from the Indian Army in the two World Wars and in numerous other situations.

Un-healthy and excessive regimental spirit can sometimes be counter productive and detrimental to the interests of a unit. Most of us are aware how units manage to bring good sportsman from their regimental centres or sister battalions to win Brigade and Divisional tournaments. This is at the cost of budding young players in the battalions who do not get an opportunity to participate and in due course merely fade away. In matters of other professional competitions, how much time and energy is wasted in trying to score over the other units by 'any' means. If an important event, may be a TEWT or a sports fixture is given to a unit to organise for the Brigade or the Division, all other work except the prestigious event, comes to a halt. The whole unit is busy in putting up a better show than the other units. And all this at the expense of individual training, regimental funds and the already inadequate time available to the officers for their private study—all in the name of regimental pride and prestige. Here, I would blame the senior brass also, who insidiously encourage this unhealthy rivalry between the units for personal gain and grandeur. All this to what avail; perhaps projecting an image of excellence in training and sports to the superior, which in fact is not there.

MANIA FOR PROMOTION

All of us join the service to rise to higher ranks, besides of-course, other considerations. Legitimate aspiration is welcome and appreciated. It should also match with one's ability, knowledge and intelligence. The pyramid being narrow at the top, only a few can reach higher ranks. This fact of service life is well known to all. Where genuine aspiration for promotion

turns into a mania, things begin to take a wrong turn and perceptions change. Priorities get mixed up, one up-manship comes in, resort to any means to go up and at any cost results in dilution of the healthy rules of good administration, motivation and self-respect. All this affects delegation and subordinate development.

INTENSE COMPETITION

In our race to get ahead, competition at all levels and in all spheres assumes greater intensity. After all its a competitive world and only the highly competent should prosper and get ahead. So far, so good. Healthy competition is desirable, in fact essential for the health, progress and effectiveness of any unit or organisation. Unfortunately, it does not remain so. Un-healthy and intense competition has its own adverse fall out. Needless to say in such environments delegation suffers most. This results in inadequate sub-ordinate development, as the commander would not take any chance in being beaten to a second place by the others.

DELEGATION AND SUB-ORDINATE DEVELOPMENT

Most of the senior commanders do realize the importance of delegation, leading to proper sub-ordinate development. However, there are many barriers that inhibit proper delegation. Identifying and removing these hurdles is essential before effective delegation can be achieved. It is interesting how these barriers are set up, both by the superiors and sub-ordinates alike.

Superiors. Below are listed some of the reasons why superiors hold back delegation. These are self explanatory and need no further amplification :—

- (a) They feel they can do the job better themselves.
- (b) Training, monitoring and supervising subordinates is inconvenient and time consuming.
- (c) Taking a chance is not acceptable.
- (d) Control warnings are inadequate.
- (e) Lack of confidence in the ability of the Subordinates.
- (f) Some commanders fear loss of satisfaction.
- (g) Some are apprehensive that subordinates may overshadow them.

Subordinates. Some of the possible reasons for subordinates in shirking from accepting additional responsibility are as follows :—

- (a) They feel so insecure and prefer to consult their superior on everything.

- (b) Many are afraid of any harsh criticism.
- (c) Lack of self confidence in subordinates.
- (d) Resources may not be adequate in accomplishing the given task.
- (e) Suitable reward and incentives may be lacking.

In military organisations, (Units, Formations, Establishments and Institutions) authority is concentrated at a few peak points, namely the Commander. It avers that only a few officers are directly and fully involved in conceptual and creative aspects. Others merely carry out what they have been directed to do. Most behavioural scientists believe that is not conducive to subordinate's progress and development. They attribute most behavioural problems to this. It is also a fact that if authority is highly centralised, the top commanders will be so deeply involved in mundane activity that important command functions such as decision making and conceptual thinking will suffer.

It is, therefore, necessary that in the interest of Units, Formations, Institutions and Establishments (Organisations) and the individual officers there is optimal decentralisation through the process of delegation. At times, there is a controversy whether responsibility can be delegated along-with authority. This is mainly due to certain semantic confusion. Let us briefly examine each element of the process of delegation.

ASSIGNMENT OF TASK

In delegating, the Commander should assign specific duties to his subordinates and also give him the necessary authority and resources to fulfill these. He should also create obligations on the part of subordinates to perform the task to the best of their abilities.

RESPONSIBILITY

In bigger organisations, certain officers are already delegated responsibility with the necessary authority. Such officers may further delegate authority to their subordinates, but are still required by their superiors to answer for the outcome of work assigned to them, including those delegated to the subordinates. Thus such officers remain accountable to their higher Commanders for the work assigned to them.

It will thus be seen that responsibility is intrinsic to each task. This has moral obligation and value overtones. Delegation of responsibility is, therefore, not possible. In the process of delegation, a superior shares his

subordinates, but remains accountable to his higher commanders for their completion. There are numerous implications in delegation when seen in this context.

EXTENT OF DELEGATION

One of the dilemmas in organisations is to what extent authority should be delegated to the subordinates. This is contingent on various factors discussed in subsequent paragraphs.

Consistency and Coordination. In some organisations the need for consistency in its functions may be so highly desirable that the organisation is compelled to keep authority and control at relatively high levels. Similarly, where close co-ordination of activities is involved, affecting different agencies, centralised control may be preferred.

Competency. In organisations where commanders and staff officers at lower levels are competent and considered capable of making correct decisions and responsibility, the conditions for decentralisations are more and desirable.

Motivation. Mere competence alone is not sufficient for an officer to perform duties assigned to him. His performance is determined by his motives. Thus motivation of subordinate officers is an important factor that determines the extent of delegation.

Feed Back Mechanism. Where the organisations objectives can be quantified and specified and the progress towards attainment of those standards and goals by each unit or an individual can be measured and identified, senior officers will be more inclined to delegate authority. This depends on proper feed back system, in the absence of which delegation becomes difficult.

Information Flow. Today, necessary information poses no problems as adequate statistical data, as required, is available at all Headquarters. Because of the information readily available from the man on the spot and his better perceptions of problems, justification for decentralisation is apparent. Further, because of local conditions and inter-dependent nature of activity, localised decision making without taking into consideration, the requirements of other units may not be desirable. The extent of delegation will therefore be limited.

Commander's Philosophy. Whether the commander is prepared to delegate is the prime factor in decentralisation. This readiness would depend

upon assumptions about subordinates, the value systems and the training and motivation of the Commanders.

Subordinate Acceptance. Finally, it is the subordinate who influences the degree of delegation by showing his acceptance or otherwise of authority and responsibility. A subordinate needs to be confident, desirous of shouldering greater responsibilities and achievement oriented for a superior to assign him duties of importance, requiring additional authority.

CONCLUSION

Units and formations seeking to be operationally effective and administratively efficient cannot afford to be discouraged by the barriers to delegation. Senior Commanders cannot contribute effectively on conceptual matters if they are constantly involved in routine and mundane activity. They are expected to devote more time for creative problem solving. This can only be done by saving valuable time by letting subordinates perform routine tasks. Further, it is only through delegation that one can develop effectively future senior commanders. Training and guiding officers for higher responsibility should be given due emphasis. Commanders should be prepared to accept mistakes of subordinates. The attitudes of both the Commander and Subordinates should be shaped to accept delegation in the formations, establishments, institutions and units.

THE NOW LITTLE REMEMBERED SIBERIA-ALASKA TUNNEL PROJECT

LIEUT GENERAL S.L. MENEZES PVSM

IN the early twentieth century, two now-forgotten proposals were made to connect Russia and the USA by rail, through a Siberian-Alaskan railroad and a tunnel underneath the Bering Straits. The first proposal to build the railroad and tunnel was made in 1902 by a French syndicate, most of whose members had been stockholders in the French company which attempted to construct the Panama Canal. Although the French Panama Canal Company went bankrupt in 1899, and finally sold its rights in the canal to the USA, many of the Company's stockholders remained interested in foreign investments. In 1901 they formed a new syndicate to invest abroad in similar projects. The French syndicate's interest in the project was well founded. Russia was in the process of building railroads throughout the then Russian Empire. Foreign capital, primarily from France, Belgium and the Netherlands, was playing an important role in these projects.

As its representative in Russia, the French syndicate chose Loicq de Lobel, a French engineer and entrepreneur. An investor in both the French Panama Canal Company and the new syndicate, de Loebel was a logical selection because of his contacts in Russian government and financial circles, the Armand Hammer of those times. His arrival in the Russian capital in early 1902 appeared to be opportune, coinciding with the completion of the Russian Trans-Siberian Railroad and its Chinese eastern branch.

The syndicate offered to build a new railroad supplementing the Trans-Siberian, a parallel railroad running 5,000 miles from Irkutsk, the capital of Siberia, to Cape Dezhneva, the easternmost tip of the Chukhotsk Peninsula of Siberia. From there it would be connected to a proposed Alaskan trunk railroad by a thirty-six mile tunnel under the Bering Straits. The French syndicate asked for no Russian investment in the project, which was estimated to cost approximately 150 million US dollars; it would be financed through a ninety-year concession, in which the syndicate would receive the right to exploit any untapped natural resources, oil and other mineral reserves, fur trapping and timber cutting in an eight-kilometre-wide zone on either side of the right-of-way. Following expiration of the concession, the railroad would revert to Russian ownership without further payment.

Upon his arrival in the then St. Petersburg, de Lobel met with Sergei Yulyevich Witte, then Minister of Finance, Industry and Commerce. Witte was the obvious person for the syndicate to approach with its offer. He was the best-known Russian official in Western Europe and a pioneer in railroad building in Russia. He was also known as an advocate within Russia of close contacts with the West. What de Lobel did not know, however, was that Witte was in the process of losing a power struggle within the Russian Government for influence with the Tsar. He found his policies for foreign investment to modernize opposed by ultra-nationalist groups. Similarly, his recommendations to the Tsar to institute political and social reforms voluntarily rather than wait for violent revolutionary pressures to build up were opposed by the conservatives seeking to retain their traditional privileges. The French syndicate's proposal had other even more bitter critics, two Russian officials who stood to lose financially if the railroad plan was accepted by the Tsar. Both were favourites of the Tsar, both had served as officers in the Imperial Guards, and both were engaged in questionable financial undertakings in the Far East. The more influential of the two was Alexander Bezobrazov, a boyhood friend of the Tsar. As an officer in Siberia he had become aware of the financial possibilities in that region and in neighbouring areas of the Far East. Upon retiring as a colonel, Bezobrazov organized the East Asian Trading Corporation, which obtained a monopoly to exploit raw materials in north-eastern Siberia and in Manchuria and Korea, which were then within the Russian sphere of influence. Bezobrazov's chief aide was Colonel Vladimir Vonliarsky, also a retired Guards officer. To further his plans, Bezobrazov, who had friends in virtually every Russian Ministry and important government office, obtained the post of Secretary of State to the Tsar for the Far East. Vonliarsky's contacts were almost as wide, and he maintained access to the Tsar through his post as Imperial Equerry.

When de Lobel arrived in the Russian capital in 1902 with the French proposal, Bezobrazov and Vonliarsky's were interested in several ventures in the Far East. Vonliarsky had obtained from the Ministry of Imperial Properties a fifteen year franchise to explore and develop the Chukhotsk Peninsula. Because of its proximity to Alaska, Vonliarsky believed it might contain equally valuable gold fields. When he ran out of cash and was unable to interest foreign capitalists in investing in the project, Vonliarsky persuaded the Russian Government to finance several expeditions which searched unsuccessfully for gold deposits in the region. Bezobrazov and Vonliarsky had also obtained a concession to cut timber in the then nominally independent country of Korea. They planned to have the East Asian Trading Corporation build a railroad to the Chukhotsk Penin-

sula, with a line running to their timber concession in Korea. Unfortunately for de Lobel, the route selected by Bebobrazov and Vonliarsky for their railroad to the Chukhotsk Peninsula was much the same as the route sought by the French syndicate. As such, the syndicate had become a dangerous rival of the East Asian Trading Corporation. After meeting with de Lobel, Witte recommended to the Tsar acceptance of the syndicate's proposal. In a savage attack on the plan, Bozobrazov and Vonliarsky charged that it would be very dangerous to the Monarchy. To further discredit the plan, they alleged that the French syndicate was acting as a front for the Rothschilds, whom they described as seeking to overthrow the Tsar as retribution for Russian treatment of the Jews. The Tsar summarily rejected Witte's recommendation and refused to approve the syndicate's proposal. The Tsar had earlier ordered the Russian Treasury to allocate one million dollars for the use of the East Asian Trading Corporation activities and had approved use of Russian troops stationed in Korea to cut timber for Bezobrazov. In turn, Bezobrazov had allocated stock in the company to the Tsar's mother, the dowager Empress Maria Fedorovna, and to his youngest brother, the Grand Duke Mikhail Alexandrovich.

De Lobel returned to Paris. Shortly before his departure from Russia, he had had a final meeting with Witte. The latter, who had fallen into complete disfavour with the Tsar and was about to be dismissed from his ministerial post, predicted to de Lobel that political conditions in Russia might change in the not-too-distant future. He recommended that the syndicate should not discard its proposal and should seek to present it again at an opportune moment. The change Witte had predicted occurred three years later, when Russia was defeated in the Russo-Japanese War. Witte was recalled and headed the Russian delegation which concluded the peace treaty ending the war. Russia managed to salvage more of its Far Eastern possessions than had been expected before the negotiations. Following Witte's return to Russia, the Tsar rewarded him with the title of Count and elevated him to be Chairman of the Council of Ministers.

De Lobel now travelled to the USA to seek potential American partners. He succeeded in interesting a group of American bankers, engineers, lawyers, railroad officials and other prominent persons to whom the venture appealed. As a result, the Americans formed a corporation to build a Siberian-American railroad and tunnel. By mutual agreement, the French syndicate allowed the Americans to hold the leadership in a joint effort. The leaders of the American group included some of the most prominent Americans of the day. Among the 'founders' were Leslie Shaw, then Secretary of the Treasury in President Theodore Roosevelt's

Cabinet, John Co Calhoun, New York financier and son of former Vice-President Calhoun, and Darius Mills, founder of the Bank of San Francisco. There was no shortage of founders' with practical experience in construction and operation of railroads. Their number included General Herman Haupt, who had been Chief of Construction and Transportation of the Union railroads during the Civil War and subsequently General Manager of the Northern Pacific Railroad while that line was being extended to the Pacific, and Charles Jacobs, who had designed tunnels for the Pennsylvania Railroad and was Chief Engineer for the New York and New Jersey Railroad Company.

Early in 1905 de Lobel left against for St. Petersburg to present a new proposal of the now combined American and French interests. The plan was essentially the same as that of the French syndicate, it differed only in that the western terminus was shifted from Irkutsk to Kansk, a provincial city and transfer point on the old overland road to Siberia, about 500 miles north-west of Irkutsk. The American plan also estimated the cost of the Siberian portion of the railroad and the tunnel under the Bering Straits at from 235 to 250 million US dollars, or almost twice that of the original French syndicate's projection. The American plan was detailed in nature, specifying that the railroad company would be headed by a directorate of seven members: three Americans, two Russians and two Frenchmen. Construction of the tunnel was to begin simultaneously at both ends; in the event of unforeseen delay in its completion, the company would be permitted to institute a ferry service across the Bering Straits to connect the Siberian and Alaskan rail line. The roadbed of the Alaskan line was to follow the route of the presentday Alaskan highway, and to join at its southern portion with the American and Canadian rail systems.

Witte, a strong advocate of the plan, was now Chairman of the Council of Ministers and the leading figure in the Russian Government. Moreover, at Witte's suggestion de Lobel met and convinced the Grand Duke Nicholas of the soundness of the plan. The Grand Duke was a valuable ally, he was not only the Tsar's cousin, but also de facto chief of the Russian armed forces. He recognized the potential strategic value of the Siberian-Alaskan railroad to Russia, the lack of which he felt had resulted in defeat in the Russo-Japanese War, primarily because the Trans-Siberian Railroad was inadequate to provide logistic support to Russian forces in the Far East. In the event of a second conflict with Japan, the Grand Duke believed the proposed rail connection with Alaska would open up the way to supplies from the USA. Assuring de Lobel that he would render all possible assistance in obtaining approval of the projects, the Grand

Duke pressed hard for it within the Imperial Court. Witte entered discussion of the plan on the official agenda of the Council of Ministers. In the ensuing debate, Witte argued in favour of approval, and was supported by the Ministers of Foreign Affairs and Finance. In the face of such strong sponsorship, the other Ministers voted in favour of the plan, only the Minister of the Interior dissenting. The Tsar accepted the Cabinet's favourable recommendation, and in March 1905 ordered establishment of a special inter-ministerial commission to implement the project. In the summer of 1905 a committee of Russian transportation and financial officials travelled to the USA to discuss the project and prepare a report which would go to the Cabinet for its final approval.

At this point, the advocates of the plan, failed to reckon with Vonliarsky, whose opposition significantly figured in the final defeat of the project. Vonliarsky learned of the Tsar's approval of the plan almost immediately after the Monarch had signed the Cabinet document. He received the information from his former orderly, whom he had placed as a butler in the household of an Imperial Chamberlain. Vonliarsky mobilized his friends to attempt to defeat it. In his efforts, Vonliarsky was now not aided by his former partner, Bezobrazov. The latter had fallen into disgrace and had left Russia. By 1905 he was in Geneva, seeking to obtain a distributorship for Swiss watches in Russia.

On 12 March 1906 the entire Russian Cabinet met to consider the recommendations on the project submitted by the special inter-ministerial commission. A majority of the commission recommended final approval of the American proposal. The representative of the Foreign Ministry was particularly outspoken, stressing Russia's comparative isolation internationally and the likelihood that the proposed railroad would strengthen Russian-American relations. He warned of the prospect that Japanese efforts at obtaining dominance in the Far East might result in a second Russo-Japanese war, and that a rail link with the United States would materially benefit Russia in such circumstances. Representatives of the Finance and Commerce Ministries endorsed the American proposal, stating that it would result in more US investment in Russia and in expanding Russian-American trade. The representative of the Russian General Staff concurred in the project for strategic purposes. The representative of the Interior Ministry strongly opposed acceptance of the project. He warned that it would lead to an influx into the region of American settlers, who would colonize and then annex eastern Siberia. He cited Alaska as an example of what Americans could and would do in turning Siberia into a US possession. In the face of divided recommendations from the commission, the Cabinet held several

meetings on the subject, but came to no final conclusion. In the interim, the political situation in Russia changed radically, affecting the outlook for the proposed railroad. After a brief period of permitting the institution of democratic reforms, the Tsar fell once more under the influence of the extreme conservatives and ultranationalists, who urged him to retract the civil liberties granted. The moderate faction lost influence, and on 14 April 1906 Count Witte resigned as Chairman of the Council of Ministers. He was replaced by Ivan Goremykin, a conservative. Another conservative, P. A. Stolypin, was appointed Minister of the Interior. The remaining Ministers withdrew their support for the project, agreeing with Goremykin and Stolypin that the USA had become a sanctuary for Russian malcontents seeking to overthrow the Imperial Government. As a result of these changes, the Cabinet tabled the American proposal effectively killing it. Vonliarsky retained his hold on the Chukhotsk Peninsula. Before the latest Cabinet decision, he had announced the discovery of gold in the area, and proposed to build a railroad himself from Cape Dezhneva to the Trans-Siberian Railroad, obviating in his view any need to have foreign interests build the Siberian-Alaskan Railroad. Vonliarsky was able to extract significant amount of gold, and his efforts to obtain financing for a railroad failed.

Immediately after the outbreak of the First World War, the German naval blockade effectively sealed all sea lanes into the Baltic. After Turkey entered the war, transport to the Russian Black Sea ports was also blockaded. The only ports open to Russia to obtain supplies from abroad were Archangel, icebound ten months every year, Murmansk, which had very limited facilities, and Vladivostok in the Far East. Vladivostok became the only port through which Russia could receive a significant amount of supplies from abroad. Arms and equipment bought by the Russian War Mission in the USA and from Europe, all had to travel across the Pacific to Vladivostok. From there they were shipped across the Trans-Siberian Railroad through Asiatic and European Russia, a distance of over 10,000 miles. It was a long route and frequently supplies did not reach their destination in less than a year. As the war continued, shortages at the front and in the interior became increasingly acute. Peasants from Eastern and Central Russia walked to Siberia to obtain food which abounded there, but which could not reach them because of the supply bottlenecks. The Russian armies suffered repeated defeats, and the troops, lacking ammunition, food and clothing, deserted in large numbers. The shortages and disorder caused by the lack of rail transportation brought about the revolution of February 1917, led by moderates within the Duma opposed to the inefficiency of the Tsar and his intimates. Had it not been for the worsening shortages and persisting transportation crisis that continued after the establishment of

the Russian Provisional Government, it is an open question whether Lenin and the Bolsheviks would have been successful in gaining power in November 1917.

Events in Russia might well have taken a different turn. Germany would have been more hesitant to go to war with a Russia which could obtain supplies by rail from Alaska. If the war had occurred in such circumstances, the outcome might well have been different. It was the lack of an adequate logistic infrastructure and the inability to obtain supplies and material from abroad that were responsible for the Russian defeat in World War I far more than the superiority of the then German armed forces.

THE CAVALRY OF THE AIR

ITS HUMBLE ORIGINS

WING COMMANDER S. SANKARA NARAYANAN (RETD.)

IF one happens to turn the pages of the chronicle of the Royal Air Force and traces its development, and has a peep into the Forces' and people's concepts of an Air Force in the early part of the twentieth century, such a research is likely not only to be rewarding but also highly titillating. The primitive, embryonic ideas based on lack of knowledge of the third dimension and negative thinking were as amusing as they are vacuous, in retrospect. The following are some examples taken from the book, "History of the R.A.F.," by Chaz. Bowyer, an informative and well-illustrated addition to the existing literature on the subject.

"The Sky is the limit," is a sentence coined from the endless vistas open to the aerial adventurer. Even that ambitious statement has lost its validity, once the probe into space began, and manned and unmanned space flights started investigating life in the other planets. Such adventures had their humble origins and thousands of pilots laid their lives at the altar of research, penetrating the unknown. As the few jottings concern themselves with the military aspects of the new development, comments are confined to them.

BLIMPS OF YESTER YEARS

A certain Captain Bertram Dickson first tried to impress the military value of aeroplanes on his superiors, when he appeared flying a Bristol aircraft over the British Army annual manoeuvres in 1910. He was reprimanded for 'unnecessarily frightening the Cavalry's horses.'

The show of strength at Spithead in the year 1914 by the R.N.A.S. failed to create an impression on the many regular naval officers below. The general consensus of opinion still regarded the aeroplane as "useless for purposes of war." Naval thinking must have been at its nadir at that hour to be able to make such an unprophectic statement indeed!

PARODY OF SAFETY MEASURES

Parachutes were not issued to aircraft crews of the Royal Flying Corps and the R.N.A.S. throughout World War I. And that fact cannot but invite the comment that the authorities were either callous or did not have sufficient faith in their parachutes; or did not think of providing chances of escape for their aircrew.

But the other extreme brings tears to your eyes—out of irrepressible merriment. The De Havilland 9A two-seat day bomber had a spare wheel, like perhaps any automobile, stowed — somewhat illogically — underneath the fuselage. No one has committed to writing caustic comments on such egregious practice.

FINANCIAL PARSIMONY

The 1936 Air Estimate for the Royal Air Force was set at 39 million pounds. A slight increase in pay was envisaged for all ranks. The Chief of Air Staff was given an annual rise in salary of 25 pounds.

Even assuming that the purchasing power of the Pound was much higher in those days, to run a Force on 39 million pounds would have only been an exercise in desperation.

THE VERSITILE SIDE-CAP

Also 'introduced' was the Field Service side-cap for wear during the working hours. The official description of that piece of apparel included the quaint, yet serious, information that the new Cap F.S. "can be adapted for use as a flying helmet;"

THE MOTTO

The official motto of the Royal Air Force, "Per ardua ad astra," meaning "through labour unto the stars," was the motto of the Mulvany, an Irish family. The motto is quoted by Sir Rider Haggard in his "The People of the Mist."

WINNERS OF THE VICTORIA CROSS

In all fifty one knights of the skies earned the prestigious, supreme reward, the Victoria Cross. It will be more correct to call the list of V.C. winners as one which contains the name of every man ever rewarded with

the decoration for aerial operations. Strictly speaking, not all of them belonged to the Royal Air Force, or to its predecessor, the Royal Flying Corps. This fact, in the past, led to various forms of inter-service bureaucratic squabbling in the pursuit of vicarious honours. Individual action as well as consistent gallantry over a period have both been recognised. The following list is in chronological order of dates for individual action concerned or where the decoration was given for consistent gallantry over a period, by date of the first announcement in the London Gazette. Ranks held at those dates are indicated. Nineteen V.C.'s were won during the First World War. And the Second World War yielded thirty two V.C.'s.

Lt. William Bernard Rhodes Moorhouse RFC	26-4-1915
Lt. Sub Lt. Reginald Alexander Warneford RNAS	7-6-1915
Captain Lance George Hawker DSO, RE attached to RFC	25-7-1915
Captain John Aidan Liddell MC RFC	31-7-1915
2 Lt. Gilbert Stuart Martin Insall RFC	7-11-1915
Sqn. Cdr. Richard Bell-Davies DSO RNAS	19-11-1915
Major Lionel Brabazon Wilmot Rees MC RFC	1-7-1916
Lt. William Reeve Robinson RFC	3-9-1916
Flt. Sgt. Thomas Mottershead DCM RFC	7-1-1917
Lt. Frank Hubert McNamara RFC	20-3-1917
Captain William Avery Bishop DSO MC RFC	2-6-1917
Captain Albert Ball DSO MC RFC	8-6-1917
2 Lt. Alan Arnet McLeod RFC	27-3-1918
Lt. Alan Jerrard RFC	30-3-1918
Captain James Thomas Byford McCudden DSO MC MM RAF	2-4-1918
Captain Ferdinand Maurice Felix West MC RAF	10-8-1918
Major William George Barker DSA MC RAF	27-10-1918
Captain Andrew Weatherby Beauchamp Proctor DSO MC RAF	30-11-1918
Major Edward Manneock DSO MC RAF	18-7-1919
Fg. Offr. Donald Edward Garland RAF	12-5-1940
Sgt. Thomas Gray RAF	12-5-1940
Flt. Lt. Roderick Alastair Brook Learoyd RAF	12-8-1940
Flt. Lt. James Brindley Nicolson RAF	16-8-1940
Sgt. John Hannah RAF	15-9-1940
Flg. Offr. Kenneth Campbell RAF	6-4-1941
Sqn. Ldr. Hughie Idwal Edwards DFC RAF	4-7-1941
Skt. James Allen Ward RNZAF	7-7-1941

Sqn. Ldr. Arthur Stewart King Scarf RAF	9-12-1941
Lt. Cdr. Eugene Kingsmill Esmonde DSO RN	12-2-1942
Sqn. Ldr. John Dering Nettleton RAF	17-4-1942
Flg. Offr. Leslie Thomas Manser RAF	31-5-1942
Plt. Off. Rawdon Hume Middleton RAAF	29-11-1942
Wg. Cdr. Hugh Gordon Malcolm DFC RAF	4-12-1942
Flt. Lt. William Ellis Newton RAAF	16-3-1943
Sqn. Ldr. Leonard Henry Trent DFC RAF	3-5-1943
Flg. Offr. Llyod Allan Trigg DEF RANZAF	11-8-1943
Wg. Cdr. Guy Penrose Gibson DSO DFC RAF	17-5-1943
Flg. Offr. Lloyd Allen Trigg DFC RNZAF	11-8-1943
Flt. Sgt. Arthur Louis Aaron DFM RAF	13-8-1943
Flt. Lt. William Reid RAF	4-11-1943
Plt. Off. Cyril Joe Barton RAF	30-3-1944
Sgt. Norman Cyril Jackson RAF	26-4-1944
Plt. Offr. Andrew Charles Mynarski RCAF	13-6-1944
Flt. Lt. David Ernest Hornell RCAF	24-6-1944
Flg. Offr. John Alexander Cruickshank RAF	17-6-1944
Sqn. Ldr. Ian Willoughby Bazalgette DFC RAF	4-8-1944
Wg. Cdr. Geoffrey Leonard Cheshire DSO DFC RAF	8-9-1944
Flt. Lt. David Samuel Anthony Lord DFC RAF	19-9-1944
Sqn. Ldr. Robert Anthony Maurice Palmer DFC RAF	23-12-1944
Flt. Sgt. George Thompson RAF	1-1-1945
Captain Edwin Swales DFC SAAF	24-2-1945
Lt. Robert Hampton Gray DSC RCNVR	9-8-1945

Sgt. John Hannah RAF, who claimed his V.C. on 15th September 1940, was an eighteen year old Scot, in the trade of Wireless Operator/Air Gunner, and youngest at that time to receive a V.C.

THE 'AUK' AND I

BRIGADIER J.A.F. DALAL

THE 'Auk (Field-Marshal Sir Claude Auchinleck, G.C.B., G.C.L.E. C.S.I., D.S.O., O.B.E., LL.D.,) died on 23 March 1981, just a little over three years before his hundredth birthday (21 Juen 1984).

I recall the time he visited our unit in December 1943. With just about a year's commissioned service and three pips on my shoulders, I had been posted to Risalpur (then in the N.W.F.P. of undivided India), a month earlier as Second-in-Command of a specialised unit making maps from aerial photographs. The Commanding Officer had not been posted till then nor had the Adjutant, who in those days carried out both A & Q duties.

On a cold December morning the late Leslie Sawhney (then Brigade Major) of the Brigade stationed at Risalpur rang me up. "Dalal" he said, "The C-in-C is coming next week to this station and he will be visiting your unit. Yours is a small unit and he won't be with you for more than half an hour." "But sir," I blurted, "the O.C. and Adjutant have not yet been posted nor have most of the stores arrived." "You'll have to get going" said the B.M. and as an after-thought added "I've sent for the Command B.O.W.O. and that should help."

Now a B.O.W.O. (British Ordnance Warrant Officer) was an extremely important man as far as stores were concerned. If he wanted to help your stores came quickly. If he did not, then no amount of shouting by his bosses, the AQ, DQ or Staff Captain 'Q' could produce results. All he would say keeping quite calm was "The item is not available in stores, Sir", or "We've run out of stock, Sir." Naturally, the officers believed him. They did not want to get involved looking for a particular item in the vast and various godowns of the Command Ordnance Depot.

I conferred with the other officers. Everyone's knowledge of matters military was practically NIL. We didn't know how indents were to be prepared and why some items landed up without indents. For instance, we inherited an office building from the Survey of India. It was built to the exact specifications and fulfilled the requirement of a unit carrying out surveys from aerial photographs. In peace time it was used by a civilian survey organisation engaged in mapping from aerial photographs areas of strategi-

cal and tactical importance of the old N.W.F.P. — areas that had knife-edge ridges, steep valleys and stony river beds with the odd tree, but no jungles. Here we were in Risalpur as part of India Command, but supposed to map for ABDA (American-British-Dutch-Australian) Command and later SEAC (South-East Asia Command). Except for some photographs of the Andamans, Nicobars and a few coastal regions of Burma, we had photos mostly of the N.W.F.P. which we used for training, specially those recruited newly who needed to practise stereoscopic fusion and learn the subsequent mapping procedures. We did our work sitting on shaky or broken chairs and packing cases using some tables irregularly hired from the bazar!

The day after the B.M.'s call, the B.O.W.O. arrived. He happened to be an old school friend. Rank was forgotten and we greeted each other effusively by our nick names! "Well let's get down to business" said T———. "Where's your W.E.T." I knew there was such a thing as a W.E.T., but I had never seen or dealt with it. "I don't know" I said. T——— laughed. Eventually, the Stores Clerk found the W.E.T. and we went through it. For a small unit, the list was formidable. There were: Tents, EP IP, Tables-draftsmen, Tables-office, Stereoscopes-legs and lens, Theodolites-vernier, Theodolites-glass arc and so on. T——— asked for the indents. Hardly any had been prepared. none had been sent. "O hell", said T———, "I think you'll have to come with me to Rawalpindi to identify the special items. I've never seen a stereoscope, legs and lens—sounds like a caterpillar to me". We went to see the B.M., "Sir, I am going back to 'Pindi tonight, but could Captain Dalal come with me to identify the specialist items?" "Sure" said the B.M. How could he refuse a B.O.W.O. Then to me, "Get your movement order and warrant from the Staff Captain 'Q' ". So we went to Rawalpindi taking along the W.E.T. of an Indian Air Survey Company with us.

Next day while T——— and I sat talking of old times over cups of tea, his clerks had got busy preparing the various indents. At about midday a sergeant clerk came with all the indents, some pink, some yellow, some white. I signed, checked the theodolites, drawing and other survey instruments and got back to Risalpur the following morning.

Then the stores started rolling up so fast that I had to keep a twenty-four hour guard at Nowshera and Risalpur to receive them. What pull T——— used to get priority wagons I do not know, but in about four days we had all the furniture and instruments in position and got rid of the broken down and make-shift stuff.

On the appointed day the C-in-C accompanied by the B.M. came to our unit. The Brigade Commander was waiting for the Chief at one of the Cavalry units which was the next to be visited.

The B.M. introduced me as the O.C. and there I was as nervous as I could be shaking hands with the Commander-in-Chief, India Command. But, he was no dour chief. Extremely affable, telling me to lead the way after I had introduced him to the other officers. He remarked on the excellent buildings saying that we would not be in them much longer. "Have you received all your instruments and stores?" I said we had, "When was the unit raised?" "Just about a month ago", I replied. "Excellent", said he to me and then turned to the B.M. saying "Good show", Leslie beamed.

Going round the unit with all the surveyors looking intently in their stereoscopes, he touched one of them on his shoulder and expressed wish to look through one. He gazed at a pair of photographs for a while and said, "I recognise that country; I was there in the Mohmand Operations in 1933 and 1935. Any of your chaps been there?" I wasn't sure. "O well, let's line them up outside and I'll meet them all before leaving." So I lined them up in the sun; there were about thirty V.C.Os. and N.C.O.s. The unit was top heavy in V.C.Os; every senior surveyor was made a Subedar or Jemadar depending on his length of civilian service. He met each shaking hands asking his name and where he came from. till he came to Jemadar Lashkari Khan. "Ah, I remember seeing you during the Mohmand expedition", said the Chief. Not to be outdone, the V.C.O. replied, "I remember you, Sir, you were a Brigadier then." There was no holding back the Chief. L——— K——— and he broke into Urdu and then Pushtoo. More than ten minutes went by and it did not seem as if the visit would be over in half an hour. Leslie called me aside saying, "It doesn't look as if the Chief is going to finish soon. Do you think you could manage some tea?"

Now if there was one thing in which a survey unit stationed in winter in Risalpur excelled, it was in making tea! While under training for stereoscopic fusion, we were always told that we should not strain our eyes. Every half an hour we had to rest for five minutes. How better can one relax every half an hour on a winter day than by having a hot cup of tea?

I signalled to Captain K———, the next senior officer, to arrange for tea. When the Auk finished with L——— K——— and the other V.C.Os. and N.C.Os., I offered him a cup of tea. He turned to the B.M. "I think we'll have our tea here. Pockock" (the Brigade Commander) can wait".

What could Leslie say except "Sir" and nod. Though it was served quickly, the 'Auk' seemed in no hurry to leave. Eventually after spending an hour and a half instead of the stipulated half hour he left. I suppose the Brigade Commander and the O.C. of the Cavalry Regiment fumed!

In the afternoon, the B.M. phoned me: "You know the 'Auk' liked your unit best. Good show. He's seen lots of horses and soldiers but never an Indian Air Survey Company. He loves maps. Did you know that he couldn't get into the R.E. because he was weak in maths. But he's always been tops at map reading and field sketching." I did not know these details then, but thanked the B.M. and later passed on the compliment to the other officers. We decided to celebrate in our small mess that night. Someone said before the party got gay, "What would have happened if the 'Auk' had been good at maths?" "Perhaps he might have been the Director General of Ordnance Survey or Surveyor General of India", I said. "No", and Lt. S———, a schoolmaster in civilian life, "Even if he had joined the R.E., he would have been C-in-C like Kitchener, but not at all stern, just an affable Chief."

The 'Auk' died on the 23rd March 1981. A special service was held in Westminster Abbey on the 5th June 1981 at the request of the Queen of England. Those of us who were present on that cold morning in December 1943 and are still alive will always remember that affable C-in-C, who upset the timing of his visit to an established cavalry regiment by lingering on in a newly raised map-making unit.

PERSONS IN THE STORY

LESLIE SAWHNEY He was the Brigade Major of the Risalpur Brigade in 1943. He left the army after becoming a full Colonel shortly after partition and became a 'Captain of Industry'. There was no doubt that he would have attained a very high rank had he remained in the army. He married J.R.D. Tata's sister. He died at the relatively young age of 52, after suffering a heart attack on the golf course in Bombay.

T——— Trevor Millard in school with me from 1926 to 1932. He wrote excellent essays and always got the Essay Prize, except once when I did. He was B.O.W.O. in Northern Command in 1943 and later migrated to Australia, where he my still be.

CAPTAIN K——— Captain B.B. Kuttappa was a civilian officer who had been mobilised during the 1939-45. He was one of the earliest practi-

tioners of surveying from aerial photography. At the end of the war, he reverted to his parent department—Survey of India—and retired in 1958 as a Superintending Surveyor. He died on 29 February 1984, almost 81 years of age (born on 11 April 1903).

LIEUTENANT S———. Lieutenant John Sagar, a schoolmaster in civilian life, returned to England after the end of the War, but I have lost touch with him.

COMMANDING OFFICER. The O.C. who was to be posted was Major (later Lt Colonel) L.H. WILLIAMS. He was an exceedingly tough and fit Sapper Officer. Very early in his service with the Survey of India, he was struck by lightning while surveying in the Himalayas resulting in his having to spend about a year and a half in hospital and on sick leave. He took to farming after retiring. He found the normal sports of swimming, riding, ice hockey, gliding and flying rather tame, so he took to parachute jumping at the age of 66. Unfortunately, both he and his wife were killed in the NZ Airways Flight over the South Pole in 1979. He was about 67 years of age.

L——— K———. Lashkari Khan was a Soldier Surveyor born on 3 June 1905 who joined the Army on 17 May 1919 and served in the 5/12 Frontier Force Regiment (Q.R.O.) Corps of Guides. He joined the Survey of India on 30 April 1920 and was posted to a military survey unit during World War II. At the time of Partition he went to Pakistan. I do not know whether he is still alive and whether he is busy in some activity. I have recently written to the Surveyor General of Pakistan to let me know and will pass on the information to the U.S.I. if and when I receive it.

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